A PRACTICAL TREATISE

ON

Disorders of the Sexual Function in the Male and Female

BY

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PREFACE.

THE great majority of cases of sexual disorders which come to the observation of the practitioner, and which are at the same time amenable to treatment, are those which fall under the heading of sexual neuroses, and it is these, therefore, which require our chief consideration.

Some time ago, while preparing a paper on Sexual Neuroses[56] which was subsequently read at a meeting of The Harlem Medical Association of New York City, I asked several genitourinary specialists to discuss the paper, but was met with the reply either that they were not at all interested in the subject, or that they were so ignorant of the theme as to be unable to discuss it. One of the gentlemen went so far as to doubt the very existence of such a condition as sexual neurosis. Thus, although some of these gentlemen had made an enviable reputation for their achievements in genitourinary work, not only in this country, but also abroad, they had entirely neglected this portion of the specialty, and I was therefore compelled to resort to the services of a neurologist to open the discussion.

As a matter of fact, it must be stated that most of the literature on sexual neuroses comes, not from genitourinary specialists, but from neurologists. Nevertheless, valuable as the work of neurologists has been in this direction, the genitourinary specialist finds much that is lacking, and this

for very obvious reasons. What neurologist, for instance, is able to perform a posterior endoscopy, or to interpret correctly the conditions thus seen in the posterior urethra? How many neurologists, if any, are there, who can correctly interpret by rectal examination the difference in the feel of the prostate and seminal vesicles, as pathologically influenced by masturbation and withdrawal on the one hand, and gonorrhea, tuberculosis or senility on the other? These matters are clearly beyond their domain, yet how necessary are these data for a correct understanding, and for the proper treatment of the conditions under consideration! As I will show, and repeatedly emphasize hereafter, the apparently simple procedure of massaging the prostate is really an art, and I do not hesitate to state that many genitourinary specialists, especially those who do not treat sexual neuroses, do not know how to perform it properly. That being the case, how then can we expect the neurologist, with little if any training in genitourinary work, to perform it? Yet this method of treatment in sexual neuroses is of the utmost value. The application of silver-nitrate solution to the delicate urethral mucous membrane (which is especially hypersensitive in the sexual neurasthenic), either by instillation through the urethral syringe or by direct application to the diseased area through the posterior endoscope, is an art that requires special training in intra-urethral manipulation, and is clearly outside the domain of the neurologist. Many other examples might be given to explain why the treatment of sexual neuroses belongs to the genitourinary rather than to the neurological specialist, but the above illustrations are sufficiently striking without further examples.

In discussing this very point with a neurologist, I was informed that he considered himself perfectly competent to treat impotence in the male. His method of procedure, he informed me, was to send his patient to a genitourinary specialist for examination, and if the latter found nothing abnormal, he would treat the patient by the administration of bromides or tonics or spinal douches, etc., sometimes also passing a cold sound into the urethra.

I have cited this little episode in order to bring out another important point in connection with sexual neuroses. The failure to find any *gross* lesion in the genitourinary tract by the ordinary method of examination is by no means a guarantee that the neurosis in question is not caused by reflexes from these organs. Any of the distinguished gentlemen mentioned in the first paragraph of this preface could easily have given a clear bill of health to the genitourinary apparatus in any particular case, and yet the latter might nevertheless be the cause of marked neurotic symptoms affecting remote organs of the body. The genitourinary specialist who but occasionally peeps through the posterior endoscope, or one who even employs it more often, but has not paid particular attention to sexual neuroses, and consequently is familiar only with the *gross* lesions in the posterior urethra, which are the sequelæ of chronic gonorrhea, would doubtless be surprised to be told that some insignificant lesion, such as a slight congestion in the region of the verumontanum, which to him might seem entirely unworthy of notice, might be the very cause of the most profound reflex symptoms, while, on the other hand, the most gross pathological lesions, such as

polypi or cysts, are apparently borne without protest, either by the genitourinary apparatus or by the general nervous system.

It should be remembered, in this connection, that the major portion of the sexual neurasthenics come, not to the genitourinary clinics, but to the neurological clinics. And one who is fully familiar with the feel of the gonorrhea-infected prostate, the tuberculous, the carcinomatous, or the senile prostate, might still be entirely unfamiliar with the prostate of the sexual neurasthenic. I repeat, therefore, that the finding of nothing abnormal, in the ordinary genitourinary examination, counts for very little in the diagnosis of sexual neuroses. And, as for the treatment of impotence by the passage of a cold sound into the urethra, it is like the giving of digitalis for heart disease,—it does good where it is strictly indicated, but its indiscriminate use is merely guesswork.

I do not wish it to be inferred, however, that I underrate the value of the work of the neurologists. Far from it. They have done most excellent work, indeed the most important work in sexual neurasthenia. The works of Freud and his followers, of von Krafft-Ebing, Havelock Ellis, Hammond and Max Herz are but a few examples of their achievement in this direction. As already mentioned, most of the sexual neurasthenics find their way into the neurological clinics, complaining of the most divergent symptoms, in many cases not at all suspecting that their sexual apparatus has anything to do with their symptoms. It is the work of the skillful neurologist to differentiate these symptoms from those of other organic or

functional neuroses, and this obviously cannot be done by the genitourinary specialist. But once having made the diagnosis, or rather having excluded other nervous ailments as a possible cause of the symptoms, I believe it to be no more their province to make intra-urethral applications than it is their duty to prescribe glasses for a headache they have found to be due to eyestrain, or to do gynecological operations for neurotic symptoms resulting from pathological female genitalia.

There has existed for some time a peculiar state of affairs with regard to sexual neuroses. On the one hand, as mentioned in my opening paragraph, there are very many genitourinary specialists who are so engrossed with the major surgical work of the specialty, such as kidney, ureteral, prostatic and bladder surgery, that they do not care to bother with the less exciting and very often tedious work of treating sexual neuroses; while, on the other hand, we have the neurologist, who by his training is particularly well adapted to study this subject, but has not the genitourinary training for urethral diagnosis and treatment. For this reason it came to pass that, although I have done special genitourinary work for over twenty years, and have worked in many clinics both here and in Europe, it was not in these genitourinary clinics that I became acquainted with sexual neuroses, but only after I had associated myself for several years with the neurological clinic of Dr. I. Abrahamson of the Mount Sinai Hospital Dispensary, and studied these cases, employing the urethroscope wherever necessary, and frequent palpation of the prostate and seminal vesicles in the sexual neurasthenic, that I have been

able to make a special study of the various forms of these conditions. In other words, one of the objects of the present work is to bridge the gap between the neurologist and the genitourinary specialist.

I desire to express my thanks to Dr. I. Abrahamson for his uniform courtesy in referring to me considerable clinical material from his neurological clinic at the Mount Sinai Hospital Dispensary, and also for valuable suggestions in connection with his own specialty. My thanks are likewise due to Dr. Charles Herrman for placing at my disposal the cases of enuresis which came to his attention at the Vanderbilt Clinic, and to the *Medical Record* (New York), the *New York Medical Journal, The Urologic and Cutaneous Review,* and the *Interstate Medical Journal,* for their courtesy in permitting the use herein of articles of mine heretofore published in those periodicals.

In the following pages I will not go into the purely neurological aspects of the subject, except in so far as they become necessary to elucidate. I will not discuss such conditions as psychoanalysis or the various forms of sexual degeneracies or perversions. These belong strictly to the neurologist, as their pathology belongs rather to the field of abnormal psychology than to the genitourinary apparatus. Nor will I discuss herein the purely venereal diseases, gonorrhea, syphilis, and chancroid, as these form a distinct class by themselves and are generally, and properly, accorded a separate treatise. The subject of Sterility has also been omitted, as I have treated it in a separate work, to which the reader is referred.

The subjects to be discussed in this work will be Mas-

turbation, Impotence, Pollutions, Priapism, Clitorism, Clitoris Crises, Satyriasis, Nymphomania, Frigidity, Vaginismus, Dyspareunia, Dyspareunia in the Male, Absence of Orgasm in the Female during coitus, Enuresis, Withdrawal, Continence, and Some Unusual Forms of Sexual Neuroses. Most of the material herein represents the result of original investigation and study, never before published. Some of the subjects discussed have never before found their way into English medical literature, and some have never been discussed at all; so that even their names had to be invented by me. Especial attention is given throughout to treatment so as to make the book as practical as possible. It has also been my intention to make the discussion of each subject complete in itself, so that readers who happen to be interested in some particular subject only, need not be referred to other chapters of the work.

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MASTURBATION, or Onanism, is the production of the sexual orgasm either by manipulation of the genitals by the hand, by friction of the thighs, by the use of various implements, or by the imagination (psychic masturbation). Neither of these terms is strictly correct, as masturbation, from its derivation, presupposes the use of the hand for the excitation of the orgasm, which is frequently not the case, and Onanism, the sin of Onan, will be seen, from its Biblical description, to be really withdrawal and not masturbation. But long and common usage compels us to retain these terms.

Masturbation is the most widespread of all sexual diseases, not even excepting gonorrhea. Indeed, so common is it, that some German authorities consider it physiological, and one author states that the boy or man who says that he had never masturbated is still masturbating.

In the following pages I will only discuss masturbation as it occurs in practically normal individuals, and will not discuss the disorder as it is found among idiots, the insane, or sexual perverts. I will state at once, that it is my firm

belief, based upon an extended experience with primarily normal individuals, that masturbation, no matter how severely indulged in, never leads to idiocy, insanity, nor sexual perversion. The disease is so widespread that it is no wonder that we find such a large percentage of masturbation in the histories of these latter conditions; nor can we conclude from this fact that the latter conditions were caused by early masturbation, for we would get the same percentage in the histories of perfectly normal individuals as well. I will discuss (1) masturbation in boys and girls before adolescence; (2) pseudo-masturbation in infants; (3) masturbation in the adult male; (4) *masturbatio interrupta;* (5) *masturbatio incompleta;* (6) *impotentia masturbationis*; (7) masturbation in the adult female.

I. MASTURBATION IN BOYS AND GIRLS BEFORE ADOLESCENCE.

Masturbation is not at all uncommon in the very early months of childhood, but I believe that the theme has been much confused by such authorities as Lindner, Hirschsprung and others, who include under masturbation any state of voluptuous excitement, even when the excitement is brought about not by direct irritation of the genitals; and these authors include under this heading such acts as sucking movements with the lips, sucking the fingers, picking the nose, and many like acts. While from a purely Freudian standpoint these acts may be reasoned out to be sexual in origin, I do not consider them in the following pages as acts of masturbation.

Etiology.—According to Pfandler and Schlossmann,[93] in cases occurring during the first months or years of life, *that is,* before there is even a suspicion of sexual feeling, the condition mentioned is caused by some organic pathological condition about the genitals. Very frequently we find intertriginous processes, especially about the vulva. Often, too, the irritation is caused by worms. The pleasurable relief from the itching which is at first the only result of scratching or rubbing the vulva, and pressing the thighs together, soon engenders a habit which is persisted in on account of the voluptuous sensation which it excites. In infant boys, the irritation caused by retained smega due to a tight or long prepuce leads at first to scratching for relief, and, if the cause is not removed, later to the manipulation of the penis for the newly discovered voluptuous sensation produced thereby. Sometimes irresponsible nurses quiet crying children by titillation of the genitals, and thus start the habit very early in infancy. Irritation caused by highly acid urine may also start the trouble.

Jacobi[59] has long ago called attention to the fact that in the young boy the prolonged handling of the penis for purposes of urination is in itself a cause for the commencement of the habit. He says: "The young child is but clumsy and the reverse of adroit. It takes him time to disentangle the organ. Frequently in the streets and gardens have I seen sympathizing little friends, mostly of the other sex, and then somewhat older, or servants, busy with rendering the required aid in the emission of the urine."

In older children, especially those that attend school, certain exercises in which the legs are frequently rubbed

together may be the origin, while warm feather beds and spanking may often be the starting point. But, in a large number of cases that develop for the first time among school-children, the practice has been actually taught them by older boys; indeed, in some cases, the practice has developed into a veritable epidemic. During school-life, the condition is much more common among boys than girls, although by no means uncommon among the latter.

Pathology.—In the vast majority of cases occurring at this time, no organic changes have as yet taken place, nor has such a vicious circle been produced as will be presently described as occurring in the adult male. There is simply a local irritation of the genitals present, with as yet no permanent change in the urethral mucous membrane. In the majority of cases at this time, if the habit can be abolished by removing the local irritant which started the trouble, and adding thereto moral suasion to be presently described, everything returns to normal without any special treatment. There are some very precocious cases, however, that develop so rapidly as to cause, even at this stage and at this early age, the same local and central irritation which is found in the confirmed adult masturbator. The pathology of these cases, being the same as in the adult (only having developed before adolescence), will be described later on under the caption of Masturbation in the Adult Male.

Symptoms.—The *local* symptoms consist simply of redness, and sometimes a slight swelling of the prepuce in the male, and of the vulva in the female. Sometimes a slight vaginitis exists in the latter.

The *general* symptoms in very young children are some-

times very hard to recognize. In them masturbation consists mostly of thigh friction or of rubbing the genitals against some article of furniture. Almost endless varieties of methods are employed in the habit.

The symptoms in older children who indulge the habit are quite characteristic. They are generally more bashful, more retired, more dreamy, more easily embarrassed than normal children. They complain of headaches, are easily fatigued, are generally anemic and run down. They do not play with other children and frequently avoid their society. Boys are as a general rule more cowardly and timid, and are frequently praised by their teachers for their quiet and orderly disposition. Some pediatricians claim to have noticed cases of functional heart disease due to masturbation.

Diagnosis.—In some cases the diagnosis is quite easy, while in others, unless we are on the lookout, the disease is often not suspected for a long time. As in the case of so many forms of sexual neuroses, the patients do not come to us, saying that they are suffering from sexual neuroses, and have such and such symptoms, but, on the contrary, complain of the most varied symptoms (*vide supra*); sometimes only headaches, loss of appetite, and general nervousness, etc. Often they do not complain at all, and this is the regular thing with very young children, until the mother notices something is wrong with the child. Most of the symptoms in such cases are often thought to be due to errors in digestion, overwork at school, etc., without the real cause being suspected. It is of no use to ask a boy directly if he masturbates, as in the vast majority of cases he will positively deny it, and it often requires the greatest

tact on the part of the physician to get at the truth. The most important point in the diagnosis of this condition is: to bear in mind the possibility of such a disease in all cases of inexplicable nervous or psychic symptoms. Teachers in school and parents also should be taught to be on their guard, and should know of the frequent existence of this neurosis so as to be able to detect it at the earliest possible moment. The physician should not neglect an examination of the genitals in any suspicious case, and very often the local symptoms will tell the tale. In young boys, after an examination of the genitals by the physician, whether he finds anything there or not, it is often advisable for the physician, if he is reasonably sure of his ground from the general symptoms, to immediately tell the boy, after the examination, that he masturbates. The boy, being taken off his guard, if guilty, will imagine that the physician can tell by the examination, and will often admit the truth at once.

Course and Prognosis.—The earlier the habit is discovered and attended to, the easier it is to cure. In very many cases children themselves notice the evil consequences of the habit and stop it voluntarily, without any special treatment whatever. But even cases of very long duration can be cured, if not by the method presently to be described, by the method of treating adults, which they really are. The very fact that almost every man or boy has at one time or another masturbated for varying lengths of time, and that we can get a history of masturbation in almost every normal person, even among the great geniuses of the world, shows that it is not the terrible disease which quacks find it to their interest to make it out to be. At the same time, it

is sufficiently serious to command the earnest attention of every conscientious physician and teacher. While under its baneful influence, the entire psychical and physical condition of the child suffers. He can attend to his lessons, but does so under a greater amount of nervous tension and energy. And so, while recognizing that it is a curable disease, and a very common disease, and that, in the vast number of cases, it leaves no permanent bad results, we should nevertheless not consider it beneath our dignity to treat it, if for no other reason than to keep the child away from the baneful influences of quack physicians, and because of the extreme importance of early recognition and treatment, so that the child can develop both physically, mentally, and psychically with the least expenditure of nerve energy.

Treatment, Prophylactic.—Parents should be very careful to remove anything or any cause which might produce irritation of the genital regions, or which might create a tendency for the children to handle these parts. A tight prepuce should either be loosened or circumcision be performed. A long prepuce should be removed either entirely or partially. Worms and intertriginous processes about the genitals should be removed and cured. Boys should not be allowed to associate with much older boys, for fear of being taught the habit. According to German authorities, boys in school should always have their hands on the desk or otherwise exposed to the view of the teacher, so as to give them as little opportunity as possible to handle their genitals. They also recommend, on this account, that young boys' trousers should be made without side pockets, as these pockets are frequently used by boys for purposes of mas-

turbation. Gymnastic exercises in which friction of the thighs might frequently occur should be avoided. Parents should be careful in the employment of nurses, as unscrupulous nurses often employ this method to quiet the children. Children should not indulge in tea or coffee, and alcoholics are to be particularly avoided. Older boys should be instructed to empty the bladder before retiring, not to sleep with too many covers on, and to rise early and empty the bladder at once. For, sometimes even at this early age, a distended bladder and warm bed-coverings may cause an early erection.

General Treatment for the Disease.—The first thing to do is to search for and remove the cause which started the trouble. It is not necessary to repeat the various etiological factors, as they have been mentioned in the etiology. The prophylactic treatment just outlined is even of more importence when the habit has already been indulged in, and should be strictly adhered to. In very many cases, especially if the habit has just been commenced, the mere removal of the cause of the genital irritation, together with the prophylactic treatment, is sufficient for a cure. Spanking is especially to be avoided, as in some children the act of spanking arouses erotic impressions. Older boys should be spoken to in very plain but tactful language, and their sense of manhood be appealed to. The object of treatment is to direct the child's interest into other and more natural channels. At this time the parent should obtain the child's confidence and every method be employed to strengthen his will-power and help him break the habit himself.

It is of very little use to try to treat the patient by em-

ploying some one to watch him continually; I believe the method is, in reality, harmful. The methods employed by the masturbator are so numerous, and the opportunities for committing the act so easy, that no matter how careful the watching, it will be of no avail. I have had under treatment a young boy of exceedingly wealthy parentage. Before he was sent to me the parents had employed two male nurses who were with him both day and night, who went with him, even when he had to go to the toilet, and yet the boy boasted to me that he could masturbate while both nurses were watching him. The little fellow, when he came under my care, was already a confirmed masturbator, in whom the pathological processes had already advanced to the same degree as that which we find in the adult male, to be presently described, and he was treated in the same way as an adult, and was cured and remained cured by the method to be described later on under that caption. I believe constant watching not only useless but harmful, because it constantly keeps the boy's mind reminded of his genitals. Every time he sees his watcher he thinks of his sexual apparatus, and that is the very worst thing for him. Besides this it lessens his will-power, and is almost an incitive to see if he can be shrewd enough to deceive his guardian.

Except in very exceptional cases, I do not believe in restraining apparatus. In some cases they have done good, but in the vast majority of cases they not only do no good but positive harm. In the first place they also concentrate the child's attention on his genitals, but, and what is even more important, they stimulate the child's inventive genius

in many cases, to substitute one form of masturbation for another. Thus, boys who have been masturbating by manipulating their genitals with their hands, and who have their hands tied together, or so tied that they cannot reach their genitals, very often invent a method of masturbating in which the hands can be dispensed with, such as thigh friction, pillow masturbation, etc. Such method of treatment may even be the starting point for psychic masturbation. There have also been reported severe injury not only to the skin, but even to the genital organs, from either badly fitted restraining apparatus or from the effort of the patient to masturbate with the harness on. In short, except for the very bad cases, the best method of treatment is, first to remove the cause of the local irritation, and then to appeal to the child's will-power and manhood, with a full and tactful explanation of the trouble. At the same time, the child's general health should be improved by tonics and well-directed outdoor exercises, and an effort should be made to direct the child's mind into other and more natural channels by finding objects of special interest. The bad cases, the young boys who are confirmed masturbators, are really precocious in this respect, and, as regards their sexual and psychic make-up, are actually adults, having the same pathology as adults and are to be treated as such.

II. PSEUDO-MASTURBATION IN INFANTS.

Rachford,[97] in his Presidential Address before the Nineteenth Annual Meeting of the American Pediatric Society, calls attention to a condition which he calls "pseudo-masturbation in infants." He says that it has been pre-

viously described under the titles of "Thigh Friction" and also "Infantile Masturbation," and describes it as follows:—

"It is commonly accomplished with the child lying on its back; the thighs are flexed, crossed and pressed tightly together, closely embracing the external genitalia; in this position the infant makes a wriggling or up-and-down body movement and rubs its thighs together. In other instances the genitalia are rubbed with the hands or feet or against some piece of furniture or other foreign object. These movements are apparently attended by a pleasurable excitement; the face is flushed and there is a marked increase in the general nervous tension. Following this act, which continues for a few minutes only, there is a general relaxation, accompanied by mild perspiration, quiet contentment and, in some instances, sleep."

The etiological factors are exactly the same as in true masturbation; the treatment is exactly the same; it takes about two years to cure the child of the habit, and in some exceptional cases the disease runs into true masturbation.

The author lays stress upon the point that while the external genitals, as well as the bladder and rectum, are almost fully developed at birth, the internal genitals, especially the uterus and ovaries, are almost rudimentary and do not undergo any development till about the tenth year. From this he argues that there can be no real masturbation, except in exceptional cases (which he reports) during the early years of infancy.

I confess, however, that I cannot at all agree with this author. Any one reading the above description in connection with an older child, would unhesitatingly pronounce it

to be masturbation pure and simple. The fact that a child may be cured of this habit during infancy, and then later on, through a repetition of the same or similar causes, or through bad companions again contract the vice, is by no means an argument that the first condition was not a true case of masturbation. The sexual sense is not entirely dependent upon the internal genital organs, and the fact that these organs lie apparently dormant for about ten years, is no proof whatever that they may not be exerting through some internal secretion, perhaps, an influence on the sexual sense. The modern theories of Freud and his followers seem to show that the sexual sense is not by any means absent in young children. Furthermore, I can see no use in further complicating the nosology of the subject, by inventing a special disease, and calling it pseudo-masturbation instead of masturbation, particularly if it has the same etiology, the same symptoms, the same treatment and the same prognosis as the condition we all recognize as masturbation.

CHAPTER II.

III. MASTURBATION IN THE ADULT MALE.

General considerations. Pathology. Psychic masturbation. Symptoms. Exaggerations of many authors. Fallacies in taking histories. Importance of ruling out other conditions. Masturbation in married men. Course and prognosis. Illicit intercourse not a cure for masturbation. Treatment. Importance of gentle massage. Conclusions. Masturbatio interrupta. Masturbatio incompleta. Impotentia masturbationis.

It is a pity that this subject is made so much of by the medical quacks and their advertising literature, and so little attention paid to it by the regular physician. "Of what use," says Vecki,[131] "to a man who suffers from weakening pollutions is a physician, who, following the example of renowned clinicians, laughs at him and sends him home, with some insignificant and useless prescription?" The same may be said of masturbation. It is no wonder that the patients go to the quacks, when the average physician does not care to bother with him or always treats the condition as a mere neurosis. I know of one physician who sends his patients to the mountains for masturbation, treating it as a neurotic condition. At the other extreme, I have spoken to the head keeper (not a physician) of one of our largest public reformatories, who told me that he "treated" this condition by placing the culprit in a dark cell for a week, where, besides the total absence of light, he receives only one meal in the twenty-four hours, consisting of a loaf of bread and a pitcher of water. "But so bad are the boys,"

he added, "that even this treatment does not cure them." Comment is unnecessary.

There is still another and very important reason why the subject of masturbation should be thoroughly discussed and understood. Many a young man enters into illicit connection and becomes infected with venereal disease, because he believes that coitus is the only relief for masturbation. There are physicians who advise "careful" coitus to patients who masturbate, and there are also physicians who advise patients who, on account of religious or other scruples, do not wish to violate the Seventh Commandment, and who have, however, strong sexual feeling, to relieve themselves by masturbation.

I have elsewhere[54] given my views and discussed the relationship between masturbation and illicit coitus. In addition to the many authors cited, I will mention one more author as an example of some medical advice which is very common. Vecki[131] says: "In the treatment of Onanism the individual has to be carefully studied; not every child, nor youth, nor even man, has sufficient will-power to combat successfully this evil so difficult to conquer. In many cases the object will be attained by incessant watching, or ultimately by the application of a suitable preventive apparatus, which the child must wear day and night. Mature individuals should be advised to satisfy the sexual instinct in a natural way, and no notice must be taken of the cry of horror uttered by pharisaical medical authorities or by those who, although possessed of great scholarship, are nevertheless destitute of experience. The notion that whoever has once enjoyed natural copulation will not feel

tempted to return to Onanism is an error that is somewhat prevalent. Only copulation that is practised regularly, satisfying every strong and real desire, can cure Onanism; while copulation enjoyed at long intervals only would rather incite to more frequent Onanism, because pleasing recollections are near at hand."

This is certainly a very pleasing way of treating Onanism and ought to be popular; in addition, it ought to bring to the adviser not only many cases of Onanism, but also many cases of gonorrhea and syphilis as well.

With very few exceptions, masturbation is not a nervous disease. It is not a disease of the imagination. It is a real disease, and no amount of talking, whipping, or laughing will cure it. Those who say that the patient should be talked to, and his will-power and self-restraint cultivated, his general health improved by tonics, outdoor sports, etc., have very little experience with this disease. *When masturbation has been firmly established you can no more talk your patient out of masturbating than you can talk a child suffering from scabies out of scratching. The latter is caused by an irritation in the skin and the former by an irritation in the prostatic urethra.* On the other hand, so definite is the disease, so specific is the treatment, and so positive is the cure, that it is not even necessary to obtain the patient's confidence or co-operation, from a purely therapeutical point of view. In the treatment of the disease no demands are made upon the patient's will-power or self-restraint, because we recognize that the patient has little say in the matter; it is not a question of self-control. Also, the application of restraining apparatus is worse than

useless, for in the first place it concentrates the patient's mind on his genitals, and, in the second place, to return to our comparison with the child suffering from scabies, this method of treatment would be similar to tying the hands together of such a child to prevent it from scratching. It would not scratch, not because it has been cured of its scabies, but because it is mechanically prevented from so doing. In treating this disease we should recognize that we have a definite pathological condition to treat, and not an imaginary disease, and the treatment should be undertaken in the same spirit as that of a surgeon when he undertakes the treatment of a fracture in an otherwise healthy person; if he gets the fragments in correct apposition and keeps them so by plaster-of-Paris or other splint for the necessary time, that bone will knit and the limb become normal, *whether the patient has confidence in the treatment or not.*

Pathology.—The pathology of masturbation is quite simple and directly in harmony with the prognosis and treatment. It shows that there is no new element introduced, but that it is simply an exaggeration of a perfectly normal process. As pointed out by Bangs,[9] with every irritation of the urethra, there is a corresponding irritation of a certain portion of the brain, which irritation excites the person to increased sexual desire; this increased sexual desire leads to masturbation and further increases the local hyperesthesia in the deep urethra. A vicious circle is thus formed. We thus see that the entire pathology is essentially and in the beginning but an exaggeration of what takes place in normal sexual intercourse. At the beginning, the child

manipulates his penis; this act sends an impulse to his brain, which sends another impulse to his muscles of erection, etc., and also causes a congestion of the deep (prostatic) urethra. So far the condition is like normal coitus. But this act frequently repeated leads to a hyperesthesia of the prostatic urethra, so that impulses are constantly sent to his brain, which again in response sends impulses to the prostatic urethra, still further increasing its hyperesthesia, and thus the vicious circle is formed. In other words, there is in time formed such an irritation in the deep urethra that the patient is compelled to masturbate. The difference between masturbation and normal coitus is, in the first place, that it is initiated in the young person at or even before puberty, when the sexual apparatus is still in an imperfect and developmental state, when the brain-cells appertaining to this function are also being developed, are immature and more irritable and, in short, when the whole body is undergoing profound chemical, physical, and psychological changes, and in the second place that the act is repeated much more frequently than normal coitus could be. It is this combination that causes the dire results. Even if a normal adult with fully developed normal sexual organs were to attempt coitus as often as some of these children masturbate, the result would also be a final inability to perform the act; but when we consider that the act is accomplished with immature and undeveloped organs, with an overirritable brain, and at a time when all the energy is needed for body development not only in this particular field, but in every function of the body, we can easily understand why the results are so profound. We can also understand how a dose or large amount

of bromides cannot cure the trouble, as it begins at the wrong end. It does not cure the hyperesthesia of the prostatic urethra, but simply dulls the brain-cells, so that they cannot receive impressions from the deep urethra. It is analogous to dosing a child suffering from scabies so that it cannot feel the bites of the insect and is thus less liable to scratch. As long as the insect is not removed, we have not cured our patient, even if we prevent it from scratching. We can also see how useless it is to appeal to his self-control. It must be understood that in this chapter I am only referring to the adult confirmed masturbator. It is true that at the beginning, when the child first begins to masturbate and before there has been formed the hyperesthesia of the prostatic urethra, the child can be coaxed to stop the habit; but in the adult, when there has already been formed the vicious circle above referred to, with the marked hyperesthesia of the prostatic urethra, no amount of self-control can have any effect upon this hyperesthesia, just as no amount of self-control can remove *Acarus scabiei* from the scabietic. We can also see why coitus cannot cure the confirmed masturbator. Masturbation being due to a congestion of the prostatic urethra, anything that increases the congestion must be harmful. This fact I have often noticed clinically,—that many of these patients who attempt coitus, even if successful in the performance of the sexual act, still continue to masturbate. Even Vecki (131), who is one of the strongest *opponents* to the idea of continence in young men, has stumbled on the truth, and in an extract already quoted is forced to admit that in his experience masturbation cannot be cured by coitus.

In psychic masturbation, the pathology is as follows: Either as a result of previous or recent experience, an impulse is sent from the higher parts of the brain to the sexual centers. These in turn send impulses to the vessels and glands of the genitals just as in normal coitus or ordinary masturbation. If this is frequently repeated not only do the sexual centers, which have not had a chance to return to a physiological rest as in normal coitus, become hyperirritated, but the genitals themselves remain hyperemic. This has been definitely demonstrated in the male, where hyperemia and congestion of the posterior urethra have been seen by Frank through the posterior urethroscope in pure cases of psychic masturbation. As a result of the hyperirritated condition of the sexual centers, and the local chronic congestion of the genitals, a vicious circle is set up, and the habit is more and more indulged in. Later on the sexual centers become more and more exhausted and it takes stronger and stronger mental images to arouse them into activity. The nervous drain upon the higher centers can easily be imagined. The above pathology of psychic masturbation applies alike to males and females, to adults and adolescents.

Blum[13] says: "The mastubatory act supposes a much greater activity of the imagination; the immediate erotic impressions and sensations, which come spontaneously in coitus, must be replaced in masturbation by increased mechanical stimuli and by excessive demands upon the erotic conceptions. All these powerful accessories to sexual activity, which we receive in normal cohabitation from visual impressions, tactile sensations, kissing, sensations of smell (perfume) and of hearing, all these immedi-

ate perceptions must be replaced with the manual masturbator by the power of the imagination—truly an excess of mental effort, a waste of valuable nervous substance."

Symptoms.—As stated before, it is a pity that because so many medical quacks have, for their own personal interest, so exaggerated the symptoms of masturbation in the "literature" which they scatter broadcast, many regular physicians consider themselves bound, in order to offset this bad influence, to deny any importance to the subject, which seems to have just the opposite effect on the patient,—to wit, it has the tendency to drive the patient to the very quacks who ought to be avoided.

In giving the symptoms of masturbation it is hard to take the middle course and avoid the exaggerations of the quack on the one hand and the indifference of many physicians on the other. There are some physicians, however, especially among the Germans, who seem to be so carried away with the importance of the subject, that in their enthusiasm they outdo the quacks and refer every ailment under the sun to the evil results of masturbation. Listen, for instance, to Steinbacher,[116] who gives in his work as the results of masturbation the following ailments: Insanity, blindness, indigestion, melancholia, hyperchondriasis, squint, sleeplessness, headache, dizziness, itching, abnormities in the senses of taste and smell, stuttering, angina pectoris, palpitation of the heart, a dry cough that may be mistaken for tuberculosis, asthma, pains in the feet, knees and hands, epilepsy, chorea, spasms or paralysis of the muscles of the bladder, impotence, etc.

Those who have studied the subject from every possible

point of view can understand how a reputable physician and an author can obtain this long list of dire complaints as a sequence to masturbation. I have elsewhere[54] already pointed out the mistakes in these authors, but this particular point is so important that I may be pardoned for repeating it here. Masturbation is so very common in early childhood that if we take, for instance, the histories of a large number of cases of insanity or chorea, or almost any other trouble, we shall find a very large percentage of early masturbation, but this by no means indicates that masturbation *per se* was the cause of insanity, etc. It is in this way that enthusiasts allow themselves to be betrayed into blaming every defect on masturbation. I am certain that if we were to take the histories of 100 of the greatest geniuses we would find in over 90 per cent. of them a history of masturbation.

Again, in taking the histories of these cases there is still another error which we must be careful to avoid. We must not suggest any symptom, but allow the patient to tell his own story without interruption. We will then often find that he repeats them by rote as he has read them either in the advertisement of some quack in public newspapers, or from one of the many books that are so freely distributed in the city. It will therefore be evident that the symptoms just heard in such a case cannot scientifically be put down as the symptoms of masturbation, and it is to detect this possible source of error that I never interrupt my patient, so that I may be able to recognize the symptoms suggested by what he has been reading.

After deducting all these exaggerations and sources of error, we will still have certain symptoms and conditions

and sequelæ of masturbation which are genuine and real, and not the result of imagination or suggestion. I cannot help repeating here that the symptoms and sequelæ of masturbation actually exist, and it is harmful to imagine that they can be talked out of the patient and are only imaginary. I shall now attempt to describe them calmly and without exaggeration as I have actually seen them in my clinics and in private practice.

The patient, as before stated, according to our arrangement is first seen by the neurologist. It is significant in itself that he picks out the neurological rather than the genitourinary clinic. He presents himself complaining of various nervous symptoms, very often not knowing or suspecting what the cause is. Doctor Abrahamson informs me that the symptoms which make him suspect, in the absence of other causes, masturbation as the etiological factor, are those of cerebal exhaustion,—to wit, delayed or at times incoherent associations; difficulty in recalling names or things; inability to express themselves as well as before; frequent loss of the thread of thought, and incapability of continued effort. The feeling tone is changed and they are disagreeably affected by slight and insufficient causes.

The most prominent of these is *loss of memory.* There are few masturbators who, if they complain at all, do not complain of it. I have often made a psychic investigation of this very common symptom and have come to the conclusion that, strictly speaking, there is really no loss of memory whatsoever, but that the events are crowded out of the brain by the day-dreams or self-consciousness of the patient. The masturbator is essentially a dreamer, and in

using this term I do not at all wish to use it in the spirit that the term "dreamer" is often used; I do not mean the word "dreamer" as it is often applied to men of great ideals, but I mean it in its literal sense. The masturbator is shy and bashful, exceedingly self-conscious; he thinks everyone can read his condition, becomes a recluse, and he compensates for the loss of outside society by self-communion,—in other words, by day-dreams. This introspection absorbs his entire attention, and outside events pass him by hardly noticed, or receive slight attention. It is for this reason that he thinks his memory at fault, but the real reason is, not that he forgets, but that he does not observe, or pays too little attention to things outside of his self-thoughts. That there is no real loss of memory is proved by the fact that the masturbator can remember if he wants to. I have had many cases of masturbation among college students and upon inquiry have found that they rank just as high in their work as the average,—in fact, some have received honors and prizes for their work, whereas if there were any loss or serious impairment of memory they could not have got along at all. As a matter of fact, masturbation is not incompatible with great genius.

Another symptom that many complain of is *pain* or *weakness* in the muscles of the thigh and legs. Still another common symptom is *pain in the eyes,* also *headache* and *dizziness.* One must be careful to interpret these symptoms correctly, or else harm may be done. For instance, while there are very many masturbators who complain of eye pains and dizziness, so that these can often be ascribed to the disease under consideration, we must not so ascribe

them, in any individual case, until the eyes have been examined by a competent ophthalmologist to exclude errors of refraction. And so it is with all the symptoms complained of; before we blame them on masturbation we must be certain that there is not a more real organic basis for them. As stated before, it is just a neglect of this precaution that leads writers into the error of ascribing a long list of ills to masturbation. It must be remembered that the masturbator is exceedingly introspective and likes to blame every trouble he has on his "youthful sin." If he is constipated, or has distress after eating or anything else, he is sure to blame it on masturbation.

Coming now to the symptoms of the genitourinary tract, we find first and foremost a marked hyperesthesia of the entire urethra, and especially of the prostatic portion. This condition is always present and is almost pathognomonic of masturbation. I have in the course of many genitourinary examinations examined many urethræ, but in no condition of the urethra, whether due to the presence of a foreign body, to the irritation of a very strong injection, to a tight stricture or what not, is the sensitiveness as evinced by the pain it caused to be at all compared to that which we find in the chronic masturbator. This sensitiveness is very important not only from a symptomatic point of view, but also from a therapeutic and prognostic point. The sensitiveness is our most important guide to the frequency of treatment, to the strength of solution to be used, and also to the cognizance of cure or cessation of all treatment.

Hand in hand with this hyperesthesia of the urethra, and dependent upon the same cause is the hyperesthesia of the

prostate gland as examined *per rectum*. Here again the hyperesthesia is extreme, even if the gland is not markedly enlarged. I have made it a point for many years to examine the prostate *per rectum* as a routine in every genitourinary examination. I have thus made many examinations in acute and chronic urethitis, in acute and chronic prostatitis, in prostatic abscess, etc., but in none of these conditions is the prostate as sensitive as in cases of masturbation. As a general thing the prostate is enlarged, but not necessarily so, and it is *always* hyperesthetic.

It is a very common error to consider that masturbation is always accompanied by pollutions, using this latter term in a general popular sense, without distinction whether spermatozoa are present in the discharges or not. I cannot, however, too emphatically state that masturbation and pollutions are entirely distinct conditions and have nothing to do with each other. While some mastubators also suffer from pollution, still in a very large number of cases patients may masturbate without ever having had pollutions.

It is also a mistake not to think of masturbation because the patient is a married man. In a small percentage of cases married men masturbate in addition to performing sexual coitus. I have one patient who is so passionate that during the time his wife is indisposed he relieves himself by masturbation. There are also married men who experience more pleasure from masturbation than from regular sexual intercourse. There are also masturbators who get married or practise illicit connection, upon advice, medical or otherwise, with the idea of curing their masturbation; but this does not succeed and they continue their practice in addition.

This is a very important point and will be again referred to under treatment. There are also married men who, while their wives are temporarily absent, practise masturbation.

Again, it is a mistake not to think of the possibility of a chronic gonorrhea in a case of masturbation. This is also important, for, if we do not recognize it, we may, by treating the patient for masturbation, light up his old gonorrheal infection and make matters worse. There are masturbators who, as previously stated, think of curing their trouble by coitus and thus acquire gonorrhea.

But all these special symptoms, which we have tried to analyze in detail, give but a poor and inadequate picture of the confirmed masturbator. The confirmed masturbator is apt to be a physical coward, a man who will stand all sort of insult, who will run away rather than fight or stick up for his most obvious rights. All the spirit of manhood seems to be crushed out of him. He is very often praised for his gentleness, for his saintlike demeanor, his humility, etc., but if we carefully study the individual, if we dive into his thoughts and make a psychical study of them, we will find that these traits are not virtues. We will find that he feels his wrongs as keenly as another, that he makes plans of revenge in his mind which he would fain carry out, but which he has not the energy to undertake and is too much of a coward to attempt. He is good, not because of any virtue, but because he is too much of a coward to be bad.

As before mentioned, the masturbator is essentially a dreamer, that is, he is very much occupied with his own thoughts and is very shy and bashful in his relationship with the outside world. He is especially bashful in the

presence of females. He feels his condition keenly. Sometimes he attempts coitus with a view of curing his condition, and is often unsuccessful. Frequently, instead of masturbating with his hands he masturbates with his brain,—that is, he calls up vivid pictures (psychic masturbation) and so causes erection and ejaculation. These cases of psychic masturbation are the most difficult cases to cure, and the psychic form lasts for some time after the regular form has been abandoned.

And so he continues year after year; the number of times he masturbates varies greatly with the individual, but it is astonishing sometimes to hear how many times a day and for how long a period he can keep it up. It is this frequency and the fact that he needs no special preparation or place of convenience that constitutes one of the great differences (but not the only one) between masturbation and normal coitus.

It is really remarkable how much insult the sexual apparatus will stand before it rebels. If coitus were practised nearly as often as some of these patients masturbate, the result might possibly be much more disastrous.

But after a while he comes to that stage where he masturbates, not because he likes it, but because he *has* to. He has that awful irritation in his deep urethra, and he simply must masturbate. The periods of previous excitement (pleasure) become less and less, as does also the amount of fluid ejaculated. Then there comes a time when he *cannot* masturbate. He has the irritation, he has the impulse to masturbate, but, no matter how he manipulates his penis or how he excites his brain, he can neither obtain an erection

nor an ejaculation. He is indeed in a most wretched condition.

But long before this stage is reached his nervous system has been severly affected. He has tremor of the hands, excessive perspiration, pains all over, various mental symptoms (*vide supra*),—in fact, the amount of reflex nervous disturbance is most varied. His digestion suffers; he becomes morose and inattentive. He tries coitus and finds himself impotent, but may however contract venereal disease. He has tried many times to break himself of the habit, but invariably fails. He may have made the rounds of the various advertising quacks and found no relief. He then falls into despair and thinks there is no remedy for him and that he is doomed to perpetual suffering. It is useless to talk to a confirmed masturbator of self-control, because he *cannot* control himself.

I have attempted to describe without exaggeration the course of masturbation as I have seen it in dispensary and private practice. It is, however, not every case that goes on to this very last condition. The disease may be halted at any stage by treatment. I have attempted to give a general description, but no one description will fit every case. The number of reflex phenomena are as numerous as the various functions of the nervous system.

Course and Prognosis.—As a general thing, between the time of the first and second treatments, the patient experiences once the desire to masturbate, but is able to resist the desire. Already after the second treatment the patient does not even experience the desire to masturbate. The prognosis is therefore excellent. The psychic form of mastur-

bation continues somewhat longer, but that too yields after a few treatments. It is wonderful how patients, who for years have had that terrible pressing need to masturbate, will, in only the small space of one or two weeks, indeed, already after the first treatment, do entirely without it. But of even more importance than the genital effect of the treatment is the effect on the character of the patient himself. His whole character changes. He now finds delight in the society of women. To take a morose, underfed, ill-natured man and transform him in a little while into a jolly, good-natured fellow, full of the spirit of life, is indeed something to be proud of. But this is not the exception; it is the rule. The only reason for keeping up the treatment for six months is not so much for fear of a relapse, but that it takes that time fully to restore the prostatic urethra to its normal condition.

It is advisable from the very beginning of treatment to explain to the patients the dangers of illicit sexual intercourse, and this warning should be repeated again and again, especially as the patient is getting well. As the patient is getting well, his new enjoyment of life, his new interest in the society of women, his greater general intercourse with society, theatre, dances, etc., often beget in him a normal desire for sexual intercourse, which can easily be restrained by a few words of advice. It has already happened that patients have been cured of masturbation, only to come back to the dispensary with a gonorrhea, which some seem to be especially proud of their ability to obtain.

Treatment.—Before commencing treatment for the disease proper, it is necessary to determine, or have determined by competent authority, if some or most of the reflex symp-

toms are due entirely to masturbation or are caused by some other, possibly more important organic condition. I remember a good many years ago seeing a patient who had been treated by one of our advertising "specialists" for "lost manhood" and whose chief symptoms were loss of weight and energy and marked perspiration, but who, in fact, although a masturbator, was well advanced in pulmonary tuberculosis, which was the real and more important cause of his symptoms. In the same way pains over the eyes and headache may be due to errors of refraction, palpitation of the heart to organic heart disease or tobacco, etc., or the patient may be a psychopath or neurastheniac.

It is also advisable, if there be a history or suspicion of gonorrhea, to examine the entire urinary tract, using the anterior and posterior endoscopes if thought necessary to determine if there exists any pathological condition of the canal. Where there is absolutely no suspicion of gonorrhea, the use of the endoscope as well as all unnecessary instrumentation of the canal had better be omitted. Needless to say, the urine should be examined as a routine matter in every case.

The treatment of masturbation proper which I have employed for many years with excellent results is as follows:—

The patient always presents himself with a full bladder; this is important for two reasons,—in the first place so that the patient can urinate immediately after his prostate has been massaged and so expel the mucus that has been expressed from the follicles, and, in the second place, it is better to have his bladder empty after the injection pres-

ently to be described has been given, so that he may refrain from urinating for some time after the injection. Again, if the bladder is not full it is also harder to reach the prostate and more difficult to massage it, and in addition we also get an entirely wrong idea of the size of the prostate if palpated *per rectum* with the bladder empty. So that if the patient presents himself with a full bladder, it is easier to palpate his prostate, easier to massage it, and easier for him to empty his bladder after the massage. The patient then stands with his buttocks toward the physician, and the index finger, protected by a finger cot, is carefully and slowly introduced into the anus till the prostate is reached, and the prostate is then *gently* and slowly massaged. The prostate will be found at the first examination to be exquisitely tender and must be handled very gently, remembering that the object is *not* to squeeze out every drop of mucus from the prostatic follicles, as we attempt to do in certain cases of chronic gonorrhea, but the object is to massage it. The first *séance* should only last a few seconds, and on subsequent visits the prostate will generally be found less and less sensitive, and the length of time of massage, as also the pressure employed, should be greater. The amount of pressure employed, as well as the length of time of massage, is entirely regulated by the sensitiveness of the organ. As soon as the prostate has been massaged the patient is directed to urinate, but he will have some difficulty in starting the stream. This fact is noted whenever the prostate is massaged for any condition whatsoever,—that the patient with a full bladder, which is just bursting to pass water, will, after the massage, not be able to pass it and have little

desire to urinate. It may be necessary for the physician to leave the room or else have the patient go to a regular toilet before he is able to start the stream.

After the patient has emptied the bladder, he lies down upon the table, the meatus is cleaned, and with a Bangs sound syringe a 1 : 3000 silver-nitrate solution is instilled into the deep urethra. These sound syringes come in sizes corresponding to the regular sounds. There are some who recommend, instead, the passage of a cold ordinary sound. I have tried both methods, and have found the sound syringe so far superior to the cold sound that I have given up the latter since many years. The sound syringe must be lubricated with some substance that will not interfere chemically or mechanically with silver nitrate; by mechanically I mean it must not coat the walls of the urethra with an impervious substance. Vaselin is absolutely useless for this purpose. I use preparations of Irish moss. As little as possible of the lubricant should be put on the instrument. The instrument should be introduced *gently* and *slowly* into the urethra till its tip is well within the prostatic urethra. The urethra, especially the prostatic urethra, will be found very sensitive. Those who have not learned the art (and it is a great art) of introducing an instrument *slowly* into the urethra, had better not make their first attempt on patients who have masturbated; let them first practise on some old, insensitive stricture case.

You cannot go *too* slowly. When the instrument is in place, a few drops of the solution are deposited in the deep urethra; there is absolutely no harm if some of the solution should get into the bladder; then the instrument is with-

drawn a trifle and a few more drops are instilled, and so on. Most of the contents of the syringe are instilled into the prostatic urethra, but as the instrument is being withdrawn, a little is injected all along the anterior urethra also. This is all that is done. The patient is told to retain his urine as long as possible after the treatment and to report in five days. He is cautioned to avoid tea, coffee, beer, all alcoholic drinks, also eggs and oysters.

At first a very small size sound syringe is used, as well as a very weak solution of silver nitrate. As the case progresses, larger size sound syringes should be used till we get it as large as the meatus will stand. The strength of the silver solution is also increased as follows: 1 : 3000, 1 : 2500, 1 : 2000, 1 : 1500, 1 : 1000, and 1 : 500. Our chief guide as regards the size of the instrument used, as well as the strength of the silver solution, is the sensitiveness of the urethra as judged by the amount of burning and reaction produced by the last injection. I never make it stronger than 1 : 500. Those who have little experience in genito-urinary therapeutics will be surprised to discover what power exists in *weak* solutions of silver nitrate.

The patient is seen every five days if possible, until we have reached the strongest solution of the silver nitrate and the largest size sound syringe, then once a week, once every two weeks, once every three weeks, once a month, and finally two or three months are allowed to elapse without treatment, and if nothing happens he is pronounced cured. The entire treatment, including the long intervals, takes about six months, but the number of visits made by the

patient is very small, as toward the end the intervals of treatment are very long and take up most of the six months.

There are some physicians with whom I have spoken who, while admitting the good results of the treatment, aver that the treatment is merely psychic. Even if this were so, it would be no argument against the treatment. But I am certain that the treatment is not psychic for the following reasons: In the first place, the hyperesthesia of the urethra actually exists, as can easily be demonstrated by the passage of instruments. And in the second place, many of these patients had been previously subjected to treatment which would have had a greater hold on their imagination than the treatment above outlined, but without any result whatsoever. Many, for instance, have had electricity applied to various portions of their genital tract, including the deep urethra, without any benefit. Some have had purely psychic treatment, even including hypnotism, Christian Science, and the like, without benefit. I must repeat that I am referring only to the confirmed adult masturbator, and not to the child that has just been taught to manipulate his penis. As stated before, the latter can, before any hyperesthesia of the deep urethra has been produced, be simply coaxed out of the habit, but the confirmed masturbator is uninfluenced by any talking or psychic treatment.

Conclusions.—Masturbation is a real disease, causing real discomforts, and is not an imaginary condition.

Do not blame every symptom the patient complains of on his masturbation, as they may be due to pathological conditions in other organs.

Masturbation and pollutions are distinct conditions, although they may coexist.

Masturbation is dependent upon a pathological condition of the prostatic urethra and not upon imagination on the part of the patient.

Coitus will not cure masturbation and is a dangerous experiment.

Masturbation is to be treated by removing the pathological condition in the prostatic urethra, and not by punishment or talking it out of the patient or appealing to his self-control.

Masturbation is a curable condition.

IV. MASTURBATIO INTERRUPTA.

Rohleder[107] was the first, I believe, to call attention to this form of masturbation. It only occurs in the male. This is a condition in which the patient masturbates, but voluntarily interrupts the procedure just before ejaculation. In ordinary masturbation, orgasm and ejaculation is the object of the masturbator, but in this condition there is neither orgasm nor ejaculation. It bears the same resemblance to ordinary masturbation, that *coitus interruptus* bears to ordinary coitus. It is, however, not analogous to *coitus interruptus,* for in the latter we have both orgasm and ejaculation, while in this condition they both are absent. *Masturbatio interrupta* may be compared to that rare form of *coitus interruptus* in which the penis is withdrawn so early, that after its withdrawal it becomes flaccid and no ejaculation takes place, whereas in the ordinary cases of withdrawal ejaculation does take place, but outside of the

vagina. *Masturbatio interrupta* is one of the severest forms of sexual neuroses, and has for its consequences the evil results of masturbation plus those of *coitus interruptus.*

I have myself seen young adults who, upon being caught in the act, voluntarily suspended the procedure until the observer went away, and then continued. Other boys, also, have voluntarily stopped just before ejaculation, so as not to stain the bed-linen and so avoid detection. Some persons seem to have the notion that it is the ejaculation that is the weakening thing about masturbation, and stop just before ejaculation.

V. MASTURBATIO INCOMPLETA.

This is a rare form described by Rohleder[107] and is characterized by a precipitate orgasm, before ejaculation. In other words, there is a feeling of satisfaction which takes place early in the manipulation and which ends the procedure and no ejaculation takes place or is necessary, as the patient has already had his desired orgasm. As soon as the patient has experienced his feeling of satisfaction (orgasm) he stops just as if an ejaculation had taken place. This condition is the result of many years of masturbation, which causes an irritable weakness in the end-organs with the result of a precipitate orgasm.

VI. IMPOTENTIA MASTURBATIONIS.

By this term, I desire to describe a final stage or rather severe result of many years of ordinary masturbation. In it, although the patient has the most intense desire to mas-

turbate, yet in spite of the most prolonged manipulation of his genitalia or of the most intense attempts at psychic masturbation, no ejaculation can be brought forth. It is but an extreme case of ordinary masturbation.

The pathology and treatment of all these last three forms of masturbation are the same as that of the ordinary variety in the adult male.

CHAPTER III.

VII. MASTURBATION IN THE ADULT FEMALE.

Genera etiology. Etiology in unmarried adults. Etiology in married adults. Impotence in the male and coitus interruptus as causes. Methods employed in masturbation. Psychic masturbation. Pathology. Physiology of normal coitus in the female. Local symptoms. General symptoms. Course and prognosis. Reflex symptoms. Diagnosis. Local treatment. General treatment. Marriage not a cure for masturbation. Importance of instructing the husband.

Etiology.—Any of the conditions mentioned in the etiology of masturbation in the young girl may also cause the trouble in the adult. In some cases the condition simply goes on from childhood and continues uninterruptedly into adult life, and it has even been known to persist into the climacterium.

Besides the above-mentioned factors, there are certain special conditions which are the cause of masturbation in the adult female. These etiological factors may be divided as follows: (*a*) in unmarried adults; (*b*) in married adults.

(*a*) *Etiology in Unmarried Adult Females.*—Temperament and mode of life are very decisive elements in determining a predisposition to masturbation. Girls of a passionate temperament, whether this temperament has been inherited or has been artificially produced by early mixture with the young of the opposite sex, are especially prone to fall into the habit. The reading of erotic literature, instruction and so-called enlightenment on sexual matters from older females, suggestive plays and moving-picture shows are all conducive to the formation of the habit. According to

Howard[52] "long marriage engagements, during which the parties have seen much of each other alone, and finally break their relations, have been the cause in some of my cases. Such women have been under constant sexual excitement; when the disappointment comes the result is a great psychic shock, restraint no longer holds or controls them, and the culmination is a catharsis of passion which is certain to be fed in an unnatural way. This is what Hall calls short-circuited sexual indulgence, because all the routes of approach—anticipation, embraces, and other natural stimuli to the secondary sexual organs—have been jumped."

It is a sad commentary upon the censorship or decency of our journals and newspapers that certain apparently innocent advertisements, skillfully worded to avoid the law, yet suggestive enough, should be allowed to come to the attention of respectable girls and perhaps, through curiosity, prompted by a teasing sexual temperament, arouse in them the habit of masturbation. "Rubber Goods," "Hygienic Pads," "Guides to Happiness," "How to be Happy though Unmarried," etc., each accompanied by sensual descriptive literature, are but a few examples of the various methods employed to attract the attention of the innocent. There are stores that manufacture articles to be used for masturbation by the female, and use the above methods to bring their goods to the attention of the sex.

(*b*) *Etiology in Married Adult Females.*—The same etiological factors which determine masturbation in the unmarried may at times cause it in the married female. As has been already mentioned, the habit which has been started in girlhood, may continue uninterruptedly during married

life, in spite of or, rather, in addition to normal sexual intercourse, and may remain uninfluenced by either coitus, pregnancy, lactation, or even the menopause. As a matter of fact, the chronic female masturbator, if she marries, experiences little if any pleasure from coitus, and certainly more pleasure from masturbation than from coitus. This is due to the fact that, on account of the oft-repeated manipulation of the clitoris and urethra, she has rendered these parts so exquisitely hypersensitive that the sensation produced by the ordinary act of coitus (the friction of the penis against the vaginal walls, etc.) cannot compare with that of the masturbatory manipulations of the sensitive external parts. In other words, the impulses of normal coitus are insufficient to arouse the sexual centers.

But besides the above etiological factors, which are common to both the unmarried and the married female, we have two very important factors which come into play only in the married. These are rapid or premature ejaculation on the part of the male, and also *coitus interruptus*. Both of these factors act in a similar manner, and their action will be discussed under the pathology.

Methods Employed in Masturbation.—Besides the ordinary methods of manipulation of the genitals with the hands, and thigh friction, the methods employed for the purposes of masturbation are too numerous to be mentioned. It should be remembered that the sexual sense is more developed in the female urethra than in any other portion of the external genitals, not excluding the clitoris. Hence it is that this portion of the anatomy is so frequently irritated by all sorts of implements, and that so often foreign

bodies, such as hair-pins, knitting-needles, etc., find their way through carelessness into the bladder. Pencils are also inserted into the urethra. Among the more common methods may be mentioned pillow masturbation, the insertion of a key or other instrument (especially in the married) into the vagina. Artificial penes have been invented and are sold for this purpose by certain firms. Tallow candles are also very frequently used. Bananas, cucumbers, and similar fruit have been used as well.

Talmey[124] states as follows: "The Japanese women, according to Ellis, use two hollow balls about the size of a pigeon's egg; one is empty, the other contains a small, but heavy metal ball, or some quick-silver, so that if the balls are held in hand side by side there is a continuous movement. The empty ball is first inducted into the vagina, in contact with the uterus, then the other. The slightest movement of the pelvis or thighs causes the metal or mercury-ball to roll, and the resulting vibration produces a prolonged voluptuous titillation, a gentle shock, as from a weak electric inductive apparatus. The balls are held in the vagina by a tampon. The women then delight to swing themselves in hammocks or rocking-chairs, the delicate vibrations of the balls slowly producing the highest degree of sexual excitement."

Coming now to the other method of producing Onanism without the use of the hands or any implements whatsoever, we have the psychic Onanism. In this method the orgasm is produced solely by central stimulatory representations. Lascivious trains of thought, sometimes, though by no means always, the results of previous experience, are

recalled. There is almost as much variety here as in the manual or instrumental method. Schrenk-Notzing[124] records the case of a female Onanist who induced orgasm simply by hearing music or while regarding paintings that displayed nothing of a lascivious character. As in the male, these are the worst forms of the malady and the strain upon the nervous system and upon the imagination is exceedingly harmful. It is just this form which is more deleterious in its results than normal coitus could be, even if coitus could be indulged in as often as masturbation.

Pathology.—In those cases due to a local irritation, there is at first, as in the male, a local hyperesthesia of the parts from which impulses are sent to the sexual centers in the brain. It is obvious that as long as the local irritation is not removed the impulses are constantly being sent to the centers. If the habit has been persisted in for a long time, from the purely mechanical effects of the continued pulling and manipulation of the external genitals, these parts remain hypersensitive, even though the original irritation has been removed. These parts then become more sensitive than the mucous membrane of the vagina, and so, if such patients marry, the stimulation of the latter parts by ordinary coitus is not sufficient to excite the sexual centers sufficiently, and orgasm does not occur except with the aid of self-friction. The same condition of affairs may be said to exist in psychic masturbation. Here, on account of the very frequent repetition of the act, the sexual centers become exhausted or dulled, and more and more psychic stimulation is necessary to arouse them. As a result the amount of psychic stimulation necessary to arouse the sexual

centers is greater than stimulation of these centers by normal coitus, and so, again, we see why normal coitus in these chronic cases will not lead to orgasm, or produce the desired effect, and why the patients prefer masturbation to coitus.

When we come to cases in which masturbation was first started during married life, after a period of normal coitus, due to withdrawal or impotence on the part of the husband, we have an entirely different pathology. To thoroughly understand it, it will be necessary to describe briefly the physiology of normal coitus in the female, for here, as everywhere else, pathology is but perverted physiology.

In the woman, with the commencement of coitus, there is a general hyperemia of all the pelvic organs. In a normal coitus with fully developed orgasm, and the expulsion of the secretions from the genital glands, a deplethorization occurs, and the pelvic organs are left in their natural condition.

If, however, the act is interrupted by withdrawal or by rapid or premature ejaculation on the part of the husband, the orgasm in the female either does not occur at all or takes place incompletely and the sexual glands do not adequately empty themselves; in other words, the female does not really "come," the pelvic organs remain hyperemic, and after this state of affairs has continued for a time a condition of chronic congestion of the pelvic organs takes place, with all its deleterious results.

I would remark, and shall frequently have occasion to emphasize the fact, that in even so-called normal coitus the woman does not receive the consideration she deserves in

the vast majority of cases. From a very large experience and study of these cases I have come to the conclusion that very few men know how to perform the sexual act correctly. As a general thing, even in so-called normal coitus, the man only considers himself, and not the woman at all. We find that when the man has an erection he immediately starts coitus, whether the woman has desire or not, and in many cases when she is but half-awakened. As soon as he has completed his part of the act, he stops and removes his penis. As a result, at the commencement of coitus the woman is not fully excited and only becomes half-way excited during the act, but remains excited, and has not nearly completed her part of the act when her husband ceases to perform. In questioning many women, I have been told by them that they experience little pleasure during the sexual act, but become excited afterward. As a result of this lack of deplethorization, and the resulting congestion of the genital organs (made much worse by withdrawal) and the state of sexual excitement after coitus, it is easy to understand how such women easily fall a prey to masturbation to complete the orgasm.

The pathology of psychic masturbation is the same as in the adult male and has been described on page 19.

Symptoms of Masturbation in the Female.—The symptoms may be divided into local and general.

Local Symptoms.—The local symptoms are due to the local irritation set up by the manipulation of the parts. In many cases I have made the diagnosis of masturbation from an examination of the external genitals and have thus compelled a confession on the part of the patient.

One of the most characteristic signs, in a case where masturbation has been practised for a long time, is an hypertrophy of the labia minora. On account of the pulling to which these parts have been subjected, they are enormously increased in size, and Howe[53] reports to have found them two and one-half inches in breadth and to look very much like the ears of a spaniel. They are dark-colored, often pigmented and parchment-like, while their base may be red and swollen. There is often intense redness and spots of excoriation near the vaginal entrance and sometimes we find a mucopurulent secretion bathing the external genitals. If the urethra has been used for purposes of masturbation we will be sure to find signs of local irritation within the meatus. As a general thing, in the unmarried, the hymen will be found intact. According to Veit, as quoted by Kisch,[69] we have a chronic vulvitis which is met with, though rarely, as a sequence of masturbation. He gives the following description of this masturbatory vulvitis:—

"As characteristic signs of this we may observe an elongation of the nymphæ, the clitoris, or the *præputium clitoridis,* and at the same time, on the inner surface of the greatly stretched labiæ, we may notice a great increase in the sebaceous glands, so that the yellowish spots formed by these structures may be seen beneath the mucous membrane with the unassisted eye. The mucous surface, indeed, may be slightly uneven in consequence of their enlargement, so that they resemble small retention cysts. The mucous membrane of the vulva between the margin of the hymen and the nymphæ is, moreover, often beset with small pointed

excrescences, the soft furrow between the clitoris and the external orifice of the urethra being very commonly marked by swelling of the mucous membrane and the presence of these little outgrowths; but sometimes also the parts lying to either side of the urethral orifice may exhibit similar changes. These small structures differ entirely from pointed condylomata—they do not branch, they occur only upon the vulval surface proper, not upon the parts exhibiting the characters of true skin, and they are non-infecting. More particularly, it must be remembered, we find these changes principally in virgins in whom on account of obscure symptoms an examination of the genital organs has been undertaken, and who suffer in addition from nervous and hysterical manifestations. The hymen, when intact, as it usually is in these cases, furnishes objective evidence that sexual intercourse is not the cause of the patient's trouble, and indeed a distinctly ascertainable cause is hard to find. The patient usually exhibits abnormal sensitiveness and excessive prudery. Veit is of opinion that the association of all these symptoms justifies the diagnosis of masturbation as the exciting cause of the chronic vulvitis; in such cases we may at one time find the mucous membrane pale, but at a later examination fiery red, and we often see a clear, transparent secretion exuding from the ducts of Bartholin's glands."

General Symptoms.—The general symptoms vary greatly in their intensity in different individuals. They are, as a general thing, more marked in those of a neurasthenic or hysterical tendency. It must be distinctly emphasized, however, that there are cases, and these by no means rare, in

which the habit has been continued for many years, and in which the patient experiences no ill effects whatsoever. Upon this point Herman[48] remarks: "My impression as to the effect of masturbation in the adult is that in the frankly sensual pagan woman, who gratifies her impulse and thinks no more about it, masturbation does little harm. The patients who suffer from it are the very sensitive religious people who think it a great sin, and are continually struggling against it. It is the struggle, as much, or more than the masturbation, that weakens the nervous system, and keeps attention fixed on the genital organs."

As a general rule it may be stated that the earlier the habit has been started, after adolescence has been established, the worse is the effect and the more severe are the general symptoms. The cases which have begun the habit only after marriage, and have gone into the habit as a result of rapid ejaculation or other forms of impotence or withdrawal on the part of the husband, will very often result in no ill effect whatsoever, especially where the women have for several years experienced normal coitus. Indeed, so mild are the symptoms, if any, in these cases, that so great an authority as Rohleder[107] actually advises titillation of the clitoris by the husband until orgasm is produced after *coitus interruptus* in those cases where both parties do not want to have any more children and by mutual consent practise withdrawal. The reason for this is easy to find. In the unmarried, the female has to draw very largely upon her imagination to produce an orgasm in psychic masturbation, while in one who has already experienced coitus, especially if practised during coitus or

after *coitus interruptus,* the strain on the imagination is practically *nil.* Those practising purely psychic masturbation, especially if unmarried, have the worst general symptoms.

Taking it all in all, the symptoms are similar to those just described in the adult male, though not nearly as severe. In some cases, however, they are very intense. The young unmarried female adult is shy and retiring, and does not seek or enjoy the company of the opposite sex. She is easily embarrassed, and morbid blushing is often a very prominent symptom. Her sexual character is often entirely altered. If she marries, after she has practised masturbation for a long time previously, she gets no enjoyment out of the sexual act. The cause for this has already been explained on page 42. Very often normal coitus is not sufficient to bring her to the orgasm, and she has to resort to titillation of the clitoris during or just before or after the act. The reflex symptoms vary greatly and are too numerous to be mentioned, but prominence must be given to vague cardiac symptoms, such as palpitation, and also in some cases a feeling by the patient of blood rushing powerfully through the carotids and a feeling of throbbing in these parts. Very often these patients seek their physician for these cardiac symptoms, and if the latter is not on his guard he may be perplexed or even make a wrong diagnosis of functional cardiac disease. This actually happened with a patient of mine, who consulted a very prominent cardiac specialist, and, although the latter found no organic heart trouble present, entirely failed to realize the real origin of the trouble, and actually had the wedding of the patient

postponed for an entire year, sending the patient to the country to rest up. In the above case, the patient entirely recovered without any treatment whatever, as soon as she was married. She remained well for over four years, during which time she gave birth to two children. Then all her symptoms returned, and upon close inquiry I was informed that for several months past she did not allow her husband to have normal coitus with her on account of fear of pregnancy, but only permitted him to insert the penis against her thighs without even touching the external genitals.

This was virtually similar to masturbation. Upon getting her to stop this method of abnormal coitus, all her symptoms again vanished. Should such a patient actually have in addition a real organic heart condition, accompanied by some valvular murmur, one can easily see how much more complicated the position becomes, and how the physician must be on his guard to properly interpret the symptoms.

Among the other more common general symptoms may be mentioned backache and headache. These symptoms, however, are so very frequently met with in women, that we must be careful first of all to rule out other possible pathological factors. It would be very sad to let a woman go on for years with a renal calculus, a retroflexion or other organic trouble and blame the symptoms upon masturbation. Similarly, as in the male, headache is very often due to eye-strain and dizziness, to a catarrhal or stenosed condition of the eustachian tube, causing a retraction of the tympanum. All these conditions must be thought of.

Diagnosis.—Just as in other medical conditions, the diagnosis may be very easy if we have the possibility of the condition in mind, and exceedingly difficult if we never dream of such a condition. We must not be led astray by social or other conditions. Just because the female is a college girl, is refined and educated, and an ardent churchgoer, is absolutely no reason for not suspecting masturbation as a possible cause of obscure symptoms. He who considers every case of nervousness in a young girl as due to the development of the menstrual function, overwork at school or college, etc., will never make a diagnosis of masturbation. Again, one must not forget to think of it as a cause because the woman is married and has children, for, as above stated, while it is rather rare for married men to masturbate, it is not at all uncommon in married women. It often requires considerable tact to get the girl or woman to confess, but in the majority of cases we can get the history *if we only think of the possibility of the habit.*

An excellent method, which I have very often found to work like a charm, is to catch the patient off her guard. In married women an examination of the genitals is easy to obtain, and we can often make our diagnosis from that alone. If we are reasonably sure of our diagnosis, we say to the patient, in a matter of fact way, "Of course you fool with yourself occasionally." No answer to this question, or a delayed negative answer, is as good as a confession. In single girls a genital examination is not advisable as a rule, but the intelligent mother can be instructed what to look for and to watch the girl. A private talk with the

young lady, with the above question, especially after a careful general examination of the heart and other organs, will also generally bring about a confession. Many people, especially the young, have a rather exaggerated idea of the knowledge and possibilities of diagnosis by a physician, and so it is not unusual for a young girl to think that a physician by listening to her heart can find out that she practises masturbation. The disciples of Freud have little difficulty in getting at the sexual history of their patients. Whenever a young girl likes to sit by herself, and does not care to mix either in play or study with her companions, and especially if she does not care for the opposite sex, or if she is a dreamer, we should suspect masturbation. On the other hand, as already stated, even if we have correctly made the diagnosis of masturbation, we should not allow ourselves to fall into the opposite error, of blaming all her symptoms upon this habit, but should also consider the possibility of errors in refraction, digestion, assimilation, gynecological, neurological, orthopedic and other conditions being present simultaneously. In practically every case where a foreign body is found in the female urethra or bladder it has been introduced from without and masturbation is the direct cause.

Treatment of Masturbation in the Female.—Local Treatment.—All local irritations of whatsoever nature must be removed. Eczematous and intertriginous conditions about the genitals must be relieved. It makes no difference whether the local condition is the cause or the consequence of the masturbation. Even if not the cause, it serves to keep up the habit, to attract the attention of the patient to

her genitals, and retards a cure. Gymnastic exercises which might bring into play thigh friction, also sliding down the bannisters and similar amusements should be interdicted. Operations on the genitals do no good unless some distinct condition, aside from the habit, presents itself.

General Treatment.—"Confession," says Howard Kelly,[64] "however fragmentary, is a long first step toward recovery." For this reason I have laid such great stress upon being upon the alert and upon the lookout for the habit and so getting a confession from the patient, by taking her off her guard. Both as a preventive and as a curative measure, we must positively interdict coffee, tea, and alcoholics. In bad cases we may administer bromides, but for a short period only. We must not rely upon them as a curative measure.

The most important agency in curing the habit is, in the first place, to remove all psychic conditions which stimulate the sexual imagination. Under this heading come erotic literature, impure plays, moving pictures, etc. In the second place, we must substitute some good habit for the bad one. Howard Kelly[64] rightly says that our motto should be: "To replace is to conquer." Any outdoor hobby such as swimming, golfing, and tennis is good. In trying to break the habit, we must use very much tact. We must not talk in vague hints, but place the issue fairly and squarely before the patient. We must help her to help herself. We must try to develop her will-power and self-control. Nothing is so good for these patients as hard work, no matter of what kind, as it keeps them occupied. Any inclination to be by themselves should be discouraged.

Long marriage engagements should be greatly discouraged, for they keep up in both parties a state of sexual erethism which easily leads into masturbation.

Yet one word more in regards to masturbation in adults. Never advise marriage as a cure. The marriage state is too sacred and too serious a condition to be used either as a preventive or as a cure for masturbation. Such vague hints as "Nothing will cure your nervousness as marriage" are both unscientific and undignified from the conscientious physician. Besides, such hints may not be without danger to the weakling. I have heard of at least one female who took to illegal coitus because her physician said that marriage was necessary to her health.

In married women who have taken up the habit as a consequence of unsatisfied desire due to the huband's impotence, withdrawal or any of the other conditions above mentioned, the cure of the husband and his proper instruction in sexual matters is essential. Although Sturgis[119] many years ago called attention to these conditions, they have not received the consideration they deserve. It may seem ridiculous to some physicians to be told that normal men ought to be instructed into the proper method of having coitus, yet to the sexologist nothing is more common than the dense ignorance on this very matter found among so-called "normal men."

Although this subject will be more fully discussed, in describing the evil consequences of withdrawal, a few words may not be amiss in this connection.

The husband is to be made aware of the fact that the wife has a well-marked sexual sense and desire, and her desire

and passion should be taken into consideration in his marital duties. He should be informed that sexual intercourse is just as important to her as to him, and the lack of it is just as injurious to her as to him. He should be informed that it is just as necessary for his wife to "come" —that is, to have complete orgasm—as it is for him; and that to simply excite his wife either by withdrawal or too soon removal of his penis, and to leave her moaning with an excited but uncompleted passion, is sure to lead to trouble.

The husband should be taught that before commencing coitus his wife should be fully awakened and, by all the arts of love and affection, be stimulated into passion, so that during the act she should if possible be as passionate as he is. If he should get through before her, he should not merely consider himself and his own comfort, but leave his organ in her vagina until she has had her orgasm. He should be the true lover and not merely the beast. If suffering from impotence, or rapid ejaculation, these should receive the proper treatment. He should be taught that *coitus interruptus* is not normal coitus, and is sure to react injuriously on both parties. If all men were properly instructed, there would be less complaint of frigidity of the wife on the part of the husband, and also less complaint on the part of the wife that sexual intercourse only results in pregnancies for her.

CHAPTER IV.

IMPOTENCE IN THE MALE.

Definition. Impotence and sterility. Organic impotence. Definition. Etiology and pathology. Symptoms. Diagnosis. Prognosis. Treatment. Rudimentary penes.

Definition.—Impotence in the male is that condition in which the man is unable to perform the sexual act. It may be either complete or partial. In the former he is absolutely unable to perform the act, while in the latter he may still be able to have a more or less complete erection, but either the erection is so weak that it subsides at the moment of intromission or even before intromission, or, in addition to this weakness, there may exist such a hyperirritability of the parts or sexual centers that the entire process of erection and ejaculation lasts but a very short while and is finished at the moment of intromission, or a very short while after intromission, or even before the penis has had an opportunity to enter the vagina.

Impotence in the male must be strictly differentiated from sterility in the male. In sterility there is an impossibility of impregnating the female, while in impotence there is an impossibility of performing the sexual act. The sterile man is not necessarily impotent. He may be fully able to properly perform the sexual act, but, on account of an old double epididymitis with occlusion of both vasa, not one drop of his testicular secretion can reach his penis. In bad cases of hypospadias and epispadias the man may have proper erection and ejaculation, but, on account of

the abnormal opening of his urethra, not one drop of his semen enters the vagina, and sterility is the result. On the other hand, it is also possible for a man who is partially impotent not to suffer from sterility. He may have premature or very rapid ejaculation and only be able to deposit his semen at the very entrance of the vagina, without even real intromission, and still pregnancy may result. As a general rule, however, the impotent man is also sterile, inasmuch as (except in very exceptional cases) he is unable to deposit his semen deep enough into the female genitalia to cause impregnation.

I believe the old classification of impotence into *impotentia cœundi,* and *impotentia generandi,* the former designating impotence of coition and the latter impotence of impregnation, has been the cause of much confusion. It is far better to limit the term "impotence" to define impossibility of performing the sexual act, and "sterility" to impossibility of impregnation.

Impotence may be classified, according to its pathology, into (I) Organic Impotence, (II) Functional Impotence, and (III) Psychic Impotence.

I. ORGANIC IMPOTENCE.

Definition.—Organic impotence is that condition in which the impotence is due to some anatomical defect in the sexual organs.

Etiology and Pathology.—Any condition which may cause a lack of development of any portion of the sexual apparatus, or an atrophy or degeneration of these parts, is an etiological factor in this form of impotence. Among

such conditions may be mentioned mumps, which in bad cases may cause a complete atrophy of both testicles so early in life, as to preclude the development of sexual powers. Injuries or other conditions which may result in complete castration before puberty will also interfere with the development of sexual sense and power. Lack of development or absence of the penis, either congenital or by destruction of this organ through injury or disease, must result in impotence, although the sexual desire may still be present. In certain forms of spinal syphilis as well as in locomotor ataxia the erection centers may be completely destroyed and impotence will follow. Injuries to the spinal cord may cause impotence, either by direct destruction of the erection center or by destruction of those fibers which convey the impulses to and from these centers to the peripheral organs. In the same way injuries to the cerebrum may likewise cause impotence. Severe injuries to the urethra may result in such distortion and shortening of the urethra that it is impossible to stretch normally in erection, resulting in curvature of the penis and impotence. Cicatricial contractions of the tissues of the penis, as the result of burns or other traumas, may also mechanically interfere with erection.

It must however be emphasized that while complete absence of the penis must of necessity lead to impotence, yet a small, undeveloped penis does not *necessarily* lead to that result. There are many cases on record in which men with almost rudimentary penes were able to perform the sexual act more or less properly. The same may be said of hypertrophy of the penis. There are indeed very few

penes, no matter how large, for which intromission is not possible. Sturgis[120] gives an extreme case (mentioned by Hyrtl) of a Swiss smith whose penis was the size of a child's body. Of this case Sturgis remarks "Clearly such an unlucky wretch would be compelled to a life of celibacy, for no mortal vagina would be capable of receiving such a *membrum virile.*" It is also remarkable how much of the penis can be destroyed by ulceration or other causes without resulting in impotence. Among other penile curiosities which may have that effect may be mentioned penoscrotal fusion, and bifid penis, while neoplasms of the penis, may from their size render the person impotent. Plastic exudates either in the corpora cavernosa or corpus spongiosum may also interfere with erection. Shortness of frenum has likewise so interfered with erection that impotence resulted until relieved by operation.

Among other conditions interfering with intromission may be mentioned enormous hydrocele, large scrotal hernia and elephantiasis. In these conditions the penis may be so enveloped by the surrounding parts that it appears absent, and cannot protrude enough for intromission even in erection. After gangrene of the penile integument or after destruction of portions of the penis from chancroidal ulcerations, scarring and contraction may result to such an extent as to interfere with erection. Among the rare conditions causing organic impotence may be mentioned horny growths of the penis, elephantiasis of the penis and scrotum, preputial calculi, ossification of the penis, and, lastly, fracture of the penis, either as a result of coitus or of "breaking" a chordee.

Walsh,[133] in the *American Journal of Urology* for May, 1913, reports an unusual condition causing impotence in the male. In these cases erection was normal, but there was absolutely no ejaculation. Nocturnal pollutions, however, did occur, and massage of the prostate produced a normal-appearing fluid which contained actively motile spermatozoa. On attempting to introduce the posterior urethroscope an obstruction was experienced in the posterior urethra. The posterior urethra was dilated by sounds until the urethroscope could be introduced. It was then seen that there had previously existed a band of tissue connecting the two ejaculatory ducts which was torn by the sound dilatations. After this the patients became perfectly normal.

The explanation given by Walsh is that, during erection, the posterior urethra, or at least that portion adjacent to the ejaculatory ducts, should be capable of distention to receive the contents of the ducts. On account of the presence of the band of tissue, however, this was impossible. The fluid could not enter the urethra and ejaculation was impossible. During sleep, however, when the penis is not at all or only partially erected, there is no tension put on the urethra causing the mouths of the ejaculatory ducts to close, and consequently the seminal fluid escapes easily. The same held good in massage of the prostate.

Horse-back riding as well as bicycle riding may cause impotence if done excessively and for a prolonged period of time. Moderate exercise in this regard has no such effect.

Symptoms.—The chief symptom is the impotence itself. In many cases partial erection can take place, and in some

cases erection takes place, but is exceedingly painful. As a result of any form of impotence there often follow a whole train of nervous symptoms, in some cases bordering on insanity and not infrequently leading to suicide. But as these symptoms are common to all forms of impotence, whether organic, functional, or psychic, they will be described later on.

Diagnosis.—The main point in the diagnosis is to find the original cause, for, after all, impotence is but a symptom of some other disease.

Prognosis.—This depends upon the etiological factor, and the possibility of removing the impediment by operation or other means. Many of the causes just mentioned are very easily remedied by operation, while others are clearly beyond our control.

Treatment.—A glance at the various etiological factors will indicate the method of treatment in many of these cases. One point should be emphasized, however, in the management of cases with small or rudimentary penes. For some of these cases, ingenious apparatus have been invented enabling the penis to enter the vagina, especially if the woman be instructed to take an astringent douche before coitus. It has also happened that after frequent coitus with the aid of such apparatus, the penis has actually increased in size and developed sufficiently for coitus without any artificial aid.

CHAPTER V.

II. FUNCTIONAL IMPOTENCE.

Definition. Sexual vigor a relative term. Etiology and pathology. Libido, erection, ejaculation, orgasm. Mechanism of coitus in the end-organs. Theory of verumontanum in coitus. Nervous mechanism of coitus. Pathology of impotence from excessive coitus. Pathology of coitus interruptus. Pathology of impotence following masturbation. Gonorrhea and impotence. Pathology of ungratified sexual excitement as a cause of impotence. Cases with obscure pathology. Author's opinion. Symptoms. Disturbance of the libido. Disturbance of erection and ejaculation. Author's opinion on paralytic impotence. Disturbance in the orgasm. Cases of congenital weakness. Importance of recognizing the etiology in the former class. Local symptoms accompanying impotence. General symptoms. Psychic symptoms. Diagnosis. Importance of examining wife. Importance of thinking of organic nervous conditions. Prognosis. Treatment. Intelligent treatment of posterior urethra. Importance of posterior endoscopy. Sexual stimulants. Original experimentation.

Definition.—Functional impotence is that form of impotence in which there exists no *gross* pathological change in the structure of the sexual apparatus, but in which the mechanism of copulation is disturbed through an interference with the function of the sexual centers or the nerves and peripheral end-organs.

In this class of cases there is found neither the absence of important organs nor the marked pathological conditions mentioned under Organic Impotence. Generally speaking, the sexual organs are sound. I have emphasized the word "gross," to indicate that the condition is not without a pathological basis, and that, in a not infrequent number of cases, the endoscope will reveal areas of congestion, inflammation or even erosions in the posterior urethra, and in

many of them an examination will show congestion of the prostate and seminal vesicles. The condition must be considered functional, however, because these lesions do not act by imposing a mechanical impediment to either ejaculation or erection, but act purely reflexly upon the sexual centers.

Impotence is physiological before puberty as well as in old age. It may also be considered physiological after a normal coitus, although some men are able to repeat the act many times.

It must be emphasized, however, that potency, or sexual vigor, is a *relative* term, and that there are some men who can indulge in coitus every night and keep this up for a very long time, while others can only indulge once or twice a week. A man belonging to the latter class would by no means be considered impotent or suffering from sexual weakness. We must therefore take the entire history of the case into consideration before deciding whether a man is losing his sexual vigor.

Etiology and Pathology.—The normal act of coitus consists in the following sequence of events, and in the harmonious relationship of the various factors. In the first place there must be the libido, or desire for sexual intercourse; then there must be the erection of the penis, then ejaculation, and finally the orgasm. The absence or disturbed relationship of any of these factors constitutes impotence, either partial or complete. Moreover, not only must the normal sequence of events occur, but also the relative time for each factor must be observed for normal coitus. Thus, if ejaculation comes too quickly, before erec-

tion is complete, or too slowly,—that is, long after erection has subsided,—or if erection does not last long enough, or if the whole process of coitus goes very quickly, or any other condition in which the time allowed to each factor is relatively out of proportion, impotence may be said to exist.

In order to understand the pathology of organic impotence, as well as the influence of various etiological factors in the production of the same, it is necessary to have a clear idea of the mechanism of normal coitus. This will be considered under two heads: First, the mechanism and sequence of events as they take place in the end-organs (*i. e.,* the testicles, epididymi, vas, seminal vesicles, ejaculatory ducts, prostate and penis), and secondly, the sequence of events in the sexual centers and nerves.

Mechanism of Coitus in the End-organs.—As soon as the libido is aroused, either by the sight or contact of a woman, or from peripheral irritation of the penis, an impulse is sent to the erection center in the lumbar portion of the spinal cord, which arouses it into activity. The center, now aroused, sends impulses to the arteries and muscular structure of the penis. In the quiescent state, the arteries of the penis are in a state of contraction, allowing no more blood than is necessary for nourishing the parts. The musculature is also in a contracted state, thus obliterating all trabeculation. The impulses which are sent out from the erection center are vasodilator in character, thus allowing the arteries to dilate and fill up with blood; they have also the effect of relaxing the musculature, and so causing the formation of large trabecular spaces. As a result, the cor-

pora cavernosa become engorged with blood. The muscles surrounding the penis, however, are thrown into contraction, which has the effect of compressing the veins of the penis, and the resulting congestion adds still further to the engorgement of the parts. The fibrous investment of the penis is put on the stretch by the increase in volume of the organ, and this also adds to the compression of the veins and the consequent engorgement of the penis. The influx of blood, however, has more to do with erection than the compression of the veins; this is proven by the fact that in priapism, which may continue for a very long time, sometimes for days and even weeks, no gangrene results.

As soon as the organ becomes rigid, the action of its suspensory ligament aided by the erector penis and the accelerator urinæ muscles causes it to become elevated. Finally all the perineal muscles come into play to complete the erection, and now the organ is hard and tense. The testicles at the same time are drawn close to the abdomen through the contraction of the dartos and the muscular fibers of the cord.

As a result of the active congestion, the mucous glands of the urethra pour into the urethra an alkaline secretion to neutralize any acid urine which may have been left therein, and which would be inimical to the vitality of the spermatozoa.

As a result of the muscular action upon the testicles, aided by the peristalsis of the musculature of the epididymis and the vas, the spermatozoa are pressed out of the epididymis into the vas and into the ampulla.

As coitus proceeds the contents of the seminal vesicles

are squeezed by muscular action into the ejaculatory ducts, the muscles of the prostate also contract, squeezing out the prostatic secretions, and at the height of the orgasm the contents of the seminal vesicles mixed with the spermatozoa, which have just been extruded from the testicles, are pushed through the ejaculatory ducts into the posterior urethra, where they mix with the prostatic secretion, and the entire product, the semen, is driven from the bulbous urethra through the penis by the contraction of the entire perineal group of muscles. The squeezing of the contents of the seminal vesicles plus the testicular contents into the posterior urethra causes the extreme of pleasurable feeling known as the orgasm.

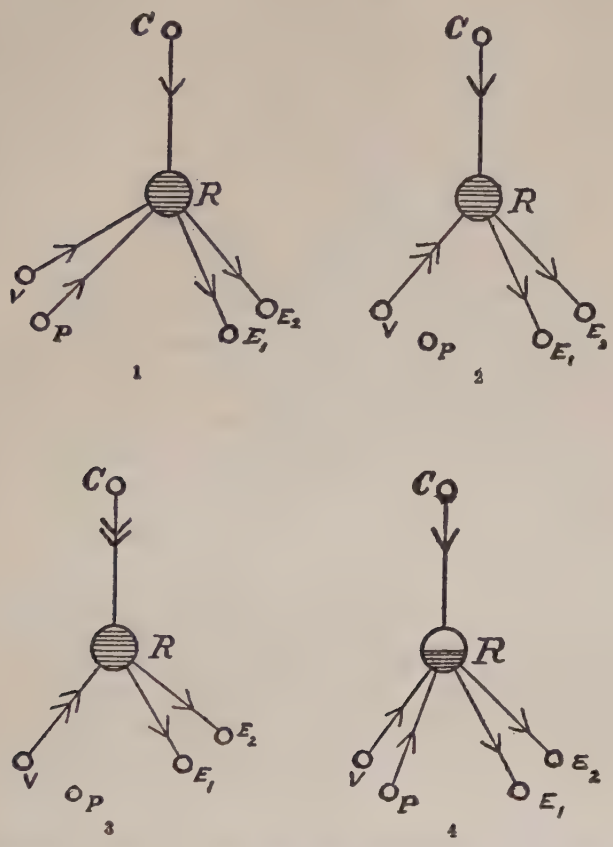
It may be noticed that, in the above description of the physiology of coitus, I have *not* mentioned that the semen, after it has reached the posterior urethra, is prevented from going into the bladder by the erection of the verumontanum, which by its erection closes off the posterior urethra from the bladder. This statement has been passed on from, I do not know how many years back, until the present time, and may be found even in some of our latest textbooks. Like so many statements, it has simply been copied from one work into another without investigation or challenge.

Since the advent of modern improved posterior urethroscopes, however, it has been noticed that in many cases the verumontanum may be exceedingly small; in fact, I have seen it in some cases no bigger than a pimple, and nevertheless no interference with the act of coitus is experienced. Moreover, Rytina[110] has reported a series of cases

in which for various reasons he had removed the entire verumontanum without any sexual difficulty being experienced by the patients.

Nervous Mechanism of Coitus.—In the description of the sequence of events which take place during normal and pathological coitus, in the sexual centers and nerves, I have closely followed that given by Groag[43] as being of especial clearness.

We may represent the various conditions diagrammatically as follows (Figs. 1-4). From *C* (cerebrum, *i. e.*, libido) impulses are sent to *R* (erection center), which sends them to the dilator nerves until complete erection results (*i. e.*, dilatation of blood-vessels of penis, etc.) Now *R* receives from *P* (glans penis during friction) continuous new impulses which serve to strengthen and keep up the erection. Besides sending the receiving impulses to the dilator nerves, *R* has also the function of keeping back a part of the impulses it receives until the cells of the erection center are filled to their utmost tension (Reitzspannungsvermögen), and then only to send the impulses to E_1 (sympathetic ejaculation center, which causes the expulsion of the secretions of the sexual glands), and also to E_2 (spinal ejaculation center, which controls the striated muscular fibers). The impulses that come from *P* to *R* (through friction of the glans penis) may be weaker, in proportion as the impulses that come from *V* (distended seminal vesicles) are stronger. In other words, with markedly distended seminal vesicles we can get normal coitus even if there is less friction of the glans penis, for enough impulses are coming from the seminal vesicles to



Diagrammatic scheme of the nervous mechanism of normal coitus, impotence, and pollutions. (After *Groag.*)

C, cerebrum; *R,* erection center; E_1, sympathetic ejaculation center (which causes the expulsion of the secretions of the sexual glands); E_2, spinal ejaculation center (which controls the striated muscular fibers); *P,* glans penis; *V,* seminal vesicles. The single arrow indicates an ordinary impulse; the double arrow, a very strong impulse. The transverse lines in *R,* in Figs. 1, 2, and 3, indicate that *R* sends out impulses to E_1 and E_2 *only after having been completely filled up with impulses,* while in Fig. 4 we see that *R* sends them out before it is completely filled up with impulses.

fill up *R*. As soon as *R* is so filled up with impulses from *C*, *P* and *V* that they overflow to E_1 and E_2, ejaculation occurs.

We may now briefly describe the nervous mechanism of normal coitus according to the above diagrammatic scheme, and later on the pathology of impotence according to the same scheme. The seat of the libido is in the cerebrum, and it may be aroused by the sight of a woman, contact with a woman, or by caressing, "spooning," erotic literature, or through any of the senses, and in numerous other and different ways. Once the libido is aroused, and the man is prepared for normal coitus, an impulse is sent from the cerebrum (*C*) to the erection center (*R*) in the lumbar enlargement of the spinal cord. This center sends impulses through the dilator nerves to the penis, as a result of which impulses the penis becomes engorged with blood and erection occurs as previously described. As the penis enters the vagina, the friction of the glans penis (*P*) sends additional impulses to the erection center (*R*). The erection center (*R*) is also getting impulses from the distended seminal vesicles (*V*). In the normal condition of affairs, it is only when the erection center (*R*) has been completely filled up with these impulses from the cerebrum (*C*), the penis (*P*) and the seminal vesicles (*V*), that it sends out impulses to the ejaculation centers (E_1 and E_2) and allows ejaculation to take place. In other words, the erection center (*R*) has two functions: first, to receive impulses from the cerebrum (*C*), the penis (*P*) and the seminal vesicles (*V*), and, secondly, to hold back these impulses till the proper time and then send them to the ejaculation

centers (E_1 and E_2), so that ejaculation should come just at the proper time and not too soon.

I have gone somewhat minutely into this diagrammatic description of the nervous mechanism of normal coitus because it is only by having a clear idea of this mechanism that we are enabled to understand the pathology of impotence. We will now take up the various etiological factors, and show how they cause impotence, by disturbing one or more of the functions of the above factors of normal coitus, or by disturbing the relationship of the various factors. The various etiological factors to be discussed will be: acute impotence from excessive coitus, coitus interruptus, (withdrawal), masturbation, sequelæ of gonorrhea, ungratified sexual excitement (prolonged spooning, etc). The pathology of many of these etiological causes will be found to be very similar.

Pathology of Impotence from Excessive Coitus.—This is the simplest form of functional impotence and consists in an exhaustion of the erection center (R). If, shortly after a completed coitus a repetition of the act is attempted, stronger excitation is necessary to accomplish erection, and still stronger and more intensive to produce ejaculation. With every repeated attempt at coitus, the necessary increase in excitation rises in proportion with the number of attempts. This can be readily appreciated from our diagrammatic scheme. After one or several attempts at coitus, the seminal vesicles are empty, and the erection center (R) thus receives no impulses from them (V), the friction of the glans penis during coitus is also less and less powerful, and so few impulses come from there (P), and the erec-

tion center (R) must therefore depend almost entirely upon the impulses it receives from the cerebrum (C) in order to cause erection and also in order to get enough impulses to become distended so that it can send them out to the ejaculation centers (E_1 and E_2) for ejaculation to take place. The erection center (R) is now in a state of absolute exhaustion, and needs a certain length of time to recuperate. After this recuperation, everything is normal again. This is the acute form of impotence in a normal person. Finally the most intensive excitations fail to cause an erection and naturally also an ejaculation. The oft-repeated acts or attempts at coitus also have the effect of exhausting the center (R) itself.

Pathology of Coitus Interruptus.—In the normal condition of affairs, as soon as the libido has been aroused, and the impulse has been sent from the cerebrum (C) to the erection center in the lumbar enlargement of the spinal cord (R), thus arousing it into activity, there occurs a normal working hyperemia of this center. This working hyperemia is being increased during coitus by continuous stimulation of impulses from the glans penis (P) and seminal vesicles (V). As soon as this center has been stimulated to its maximum, it sends its impulses to the ejaculation centers (E_1 and E_2), ejaculation takes place, and with this event there results a diminution and final disappearance of the hyperemia of the erection center. Normally, there now ensues a condition of rest for several days, and the center has plenty of time to recuperate. Sexual intercourse is not generally indulged in for several days, and the erection center is not bothered with stimulating

impulses from either the cerebrum, seminal vesicles, or other sources. (In this description I leave out of account the increased sexual activity which follows the first months of wedded life.) Normally, also, the same condition holds good in the end-organs. During coitus the seminal vesicles, which were distended, empty themselves more or less completely, the prostatic urethra, which during coitus is also hyperemic, becomes deplethorized with the normal act of ejaculation, and the parts soon regain their normal condition of blood-supply.

What is the condition of affairs in coitus interruptus? The following description of the pathology does not apply to one single act of withdrawal, but only to those cases where the practice had been kept up for a long time, months or years.

With the interruption of the act of coitus, ejaculation is incomplete, the erection center (*R*) is not thoroughly deplethorized, on account of the incomplete ejaculation. It thus remains more or less hyperemic. The seminal vesicles do not so completely empty themselves as in normal coitus, and they consequently become distended much sooner than after a normal coitus, and the desire for coitus is thus experienced much earlier than after a normal coitus. The hyperemic condition of the prostatic urethra, which under normal conditions disappears with the complete ejaculation, remains more or less in part, and after the practice had been kept up for a long time, a condition of chronic congestion of these parts supervenes. The frequent distention of the seminal vesicles leads to increased desire for coitus, and increased coitus still further keeps up the hyper-

emic condition of the erection center, leaving less time for it to recover itself. The chronic congestion of the prostatic mucous membrane has the effect of continually sending impulses to the sexual centers, even in the absence of coitus, and thus the hyperemic erection center is being constantly bombarded with impulses until it is at first in a state of hyperirritability and finally of exhaustion. While in a state of hyperirritability, the slightest impulse it receives from the cerebrum, at the very commencement of coitus, causes it to respond so rapidly that it at once sends the impulse to the ejaculation centers and ejaculation takes place at the very commencement of coitus, just as the penis has entered the vagina (rapid ejaculation), and in a later stage, even before the penis has had an opportunity to enter the vagina (premature ejaculation). In other words the center has lost its power to hold back the impulses till the proper time. This is graphically illustrated in Fig. 4. Finally, the center becomes completely exhausted, and fails to respond to any stimulus either from the cerebrum or other sources; it refuses to send out any impulse at all, and thus we get as a final stage, not only no ejaculation, but also absence of erection.

It is very interesting, if we take a careful history of one of these cases, how the symptoms follow exactly the pathology just described. We first get a history of rapid ejaculation, less and less time is consumed in the coital act, the erections may however still be strong; then we get premature ejaculation, next a weakness in the erections, the patients at this stage complain that the organ "just about gets stiff," but ejaculation takes place at once with

an immediate decline of the erection, and finally, as a last stage, they can neither get erection at all nor any ejaculation. We note that there is nothing mysterious about all this, and that it is exactly what would occur in any other end-organ under similar conditions.

It must not be imagined, however, that every case goes on to the final stage. The process may be stopped at any stage by proper treatment and a discontinuance of the practice. The length of time necessary to reach each stage varies considerably in different individuals. I have seen the final stage reached after but six months of withdrawal and, on the other hand, have seen patients indulge in this practice for many years, before any ill-effect was noticed.

Pathology of Impotence following Masturbation.—As a matter of fact, masturbation is very seldom an etiological factor in impotence, especially when we consider the frequency of masturbation. The man who has never suffered from gonorrhea and finds himself impotent is very apt, influenced by quack literature, to blame it on his youthful errors, errors which may have been committed ten or more years previously. I will not deny, however, that the confirmed, untreated masturbator, who marries with the idea that sexual intercourse will cure his masturbation, may find himself impotent.

The pathology in these cases is similar in many respects to that of withdrawal. There are lacking, however, the impulses from distended vesicles, for the confirmed masturbator does not give his vesicles a chance to become distended. The chief cause of the exhaustion of the erection center (*R*) comes from the terribly congested prostate and

prostatic urethra, which has been for years bombarding the center with reflex impulses. There are in addition two other factors which contribute toward the production of impotency in these cases. One is that the frequent manipulation of the penis has so hardened that organ that the ordinary friction of coitus (even if he is able to get his penis into the vagina) is not sufficient to arouse the more or less exhausted sexual centers. Another factor comes into play where psychic masturbation has been the predominant type. Here, also, the sexual centers have been so dulled that it is only the most vivid picture that the imagination can conjure up which will be sufficiently strong to arouse them into action, and the ordinary acts of coitus are not sufficiently powerful to arouse either the desire or the ability for coitus.

Pathology of the Sequelæ of Gonorrhea as a Cause of Impotence.—While most German authorities lay great stress upon the sequelae of gonorrhea as a cause of impotence, and many American writers follow their example, from my professional experience, I cannot at all subscribe to this opinion. Here again, we must take into consideration that gonorrhea is such a very common disease, that, in proportion to its frequency, impotence is a very infrequent complication. It might be better were it otherwise. If every man attacked with gonorrhea would become impotent, for a while at least, it would not only greatly limit the spread of the disease, but would also be a most powerful deterrent of illicit coitus.

As a sequence of severe and especially ill-treated gonorrhea, there often remain granulations, ulcerations, vegeta-

tions, and areas of congestion and erosions in the posterior urethra, especially in the region of the verumontanum. Sometimes, there is also present a chronic inflammation of the prostate and seminal vesicles, which are found to be distended with purulent and other secretions. As a result of these pathological conditions, the erection center is being reflexly bombarded with impulses from these parts, and irritability and exhaustion of the center may result. The treatment of the posterior urethra, and of the prostate and seminal vesicles, generally brings about a cure.

One must be careful, however, in interpreting the results of treatment in these conditions. It often happens that the most gross pathological conditions which are seen through the posterior urethroscope are *not* the cause of the trouble, while the insignificant areas of congestion and erosions are. Very often, by removing the gross pathological lesions, we also cure by the same application or cauterization the insignificant lesions, and are thus apt to consider the cure due to the removal of the gross lesions. As a matter of fact, however, the most gross lesions may be seen through the posterior urethroscope without in any way giving any symptoms, sexual or otherwise; whereas, in other cases, a very small area of congestion in the region of the verumontanum may be the cause of the most marked nervous and sexual symptoms.

Pathology of Ungratified Sexual Excitement as a Cause of Impotence.—Ungratified sexual excitement comes into play as an etiological factor in impotence, only if it has existed for a relatively long period of time. Under this heading comes especially the temporary impotence follow-

ing long engagements, in which the parties see each other very frequently and do much "spooning," and this goes on for a period of one or more years. Very often the man is continent, and often this continence is put down by some authors as a cause of impotence. As a matter of fact, the man in this case is not all continent, in the scientific meaning of the term; he only abstains from the coital act of intercourse. We must remember that, scientifically, the act of intercourse begins with the first caresses and flirtations, and that coitus is but the final stage of intercourse and not the whole thing. The man in this case really goes through all the preliminary stages of intercourse, stopping just short of coitus. In many of these cases, the man works himself up in his passion till the point of ejaculation, but this he psychically inhibits till the erection goes away, and then he starts in again. It is in this way the man can keep up the spooning process for hours at a time.

As a result of this practice kept up for a long time, we get a chronic congestion of the posterior urethra, just as in masturbation, but in addition we have the presence of an almost continuous state of distention of the seminal vesicles, unless they are relieved by an occasional pollution. As a result of all this, exhaustion of the erection center must take place in time, in the same manner as has been described in the previous condition. This condition is represented in Fig. 3, showing the double arrows (excessive strong impulses) coming from *C* and *V*.

Finally, as etiological factors in functional impotence, we must mention a group of cases in which the pathology is obscure. To this group belong impotence from diabetes

mellitus, acute febrile conditions, various forms of acute and chronic poisoning, chronic debilitating conditions, and some authors include herein such conditions as obesity and chronic nephritis.

Concerning chronic nephritis as a cause of impotence, Blum[14] remarks, in the *American Journal of Urology*, October, 1912, as follows:—

"We find in many textbooks *impotentia coëundi* noted in the symptomatology of chronic nephritis. A specific inhibition of the cerebrosexual center might be exerted by the urinary poisons retained in the blood, in analogy with other chronic intoxications. I myself have been obliged in many cases, in which the patient complained of diminution or extinction of the sexual need, to declare chronic nephritis to be the cause. It is one of the fundamental rules of diagnosis, that we examine the urine in every case of impotence; we often come in this way, to the great and painful surprise of the patient, to an explanation of the fatal symptom."

I doubt very much whether ordinary nephritis causes impotence. As a matter of fact I know of many men with undoubted chronic nephritis who are not in the least impotent. I have in mind at present a young man of 21, who when a child had a severe attack of diphtheria from which he almost died and which left him with a chronic nephritis, with very high arterial tension, etc., but who is very passionate sexually and not in the least impotent. Another case is that of a man of 55 with very bad kidneys, who still enjoys to the full the use of his sexual apparatus. The author quoted above cites cases where the patient complained of impotence, and where a urinary ex-

amination showed the presence of nephritis which had been unknown to the patient. He therefore concludes it to be the cause of his impotency. Yet time after time has it occurred to me, as well as probably to most physicians, that patients came for entirely different complaints, and a routine urine examination disclosed an unsuspected nephritis, in which there was absolutely no suggestion of impotence present. When we take into consideration that chronic nephritis is not by any means a rare disease, we must not be surprised that we find it present in a certain percentage of our impotence cases. Of course, in the last stages of nephritis with marked cachexia and uremic symptoms, this condition may cause impotence just as in the case in any other dibilitating disease, but I am convinced that ordinary cases of nephritis are not responsible for impotence. Blum himself seems to correct his first too general statement when he adds at page 551: "It is not surprising that in the advanced stages of nephritis with severe uremic phenomena and outspoken cachexia, as well as in diabetes, sexual impotence should occur, when the exhaustion of the patient has reached a high degree." This is an entirely different state of affairs from that of an apparently healthy man coming into the office for impotence, and in which a routine uranalysis discloses nephritis. In diabetes, however, it is different. Here the disease itself seems to be the direct cause of the impotence.

Many authorities put down oxaluria as a cause of impotence. I have paid particular attention to this and have had the urine of all of my impotence cases examined, not only in the routine manner, but especially for oxalates. My

experience shows, however, that oxaluria is only very infrequently found in impotence.

Symptoms of Functional Impotence.—The symptoms of impotence may be divided into local and general.

Local Symptoms.—I have previously remarked that, for normal coitus, there must be a certain sequence of events, which must proceed in perfect harmony and proper relationship of one to the other. These events are the libido, the erection, the ejaculation, and the orgasm. In impotence there may be either an absence or weakness of any one of these factors, or a disturbance in the relationship among them. We may therefore systematically discuss the symptoms of impotence as they affect the factors just mentioned:—

(1) Disturbance of the Libido.—This will be considered under Psychic Impotence.

(2) Disturbance of Erection and Ejaculation.—For purposes of treatment it will be necessary to consider these two factors separately, though it is more convenient at present to consider them together. The symptoms have partly been discussed in giving the pathology. It must be remembered that the patient may come to us at any stage of the disease, and that, for a proper understanding of his condition, we must go into his past sexual history most minutely in order to appreciate the proper sequence of events.

In the classic type, as illustrated by the impotence of withdrawal, the patient first notices that the time consumed in coitus is not as long as it previously was. His erections are perfectly strong, he can enter the vagina, the penis

remains erect for the necessary length of time, but the time between intromission and ejaculation is less. Often the penis remains erect for some time after ejaculation and may even come out in the erect condition. This must not be interpreted as an increase in the strength of erection, but as a normal erection with an abnormal or shortened period of ejaculation. The erection appears longer only in proportion to the ejaculation. Gradually the length of ejaculation becomes shorter and shorter, at the same time as the period at which ejaculation commences after intromission also becomes markedly diminshed; so that at a later stage, although the penis is erect, and enters the vagina, the ejaculation takes place immediately after intromission, or at the very moment of intromission. The patient now notices that not only is the ejaculation very rapid, but the erection itself does not last as long as usual. He will tell you that he has the desire, his penis becomes erect, but just as soon as he enters the vagina, ejaculation takes place at once with the decline of the penis. "The whole thing is over in a minute" is a common expression. As the disease progresses, at the very commencement of sexual excitement, the penis becomes erect, but before he can enter the vagina (often while putting on a condom) ejaculation with immediate decline of erection ensues. Finally, the penis becomes only partially erect but goes down at once without any ejaculation at all. Later on, although libido is present, there is neither erection, ejaculation nor orgasm.

It must be remembered that the patient does not of his own accord tell us the classic history as just related, but if the physician knows what symptoms to expect, he will,

by proper interrogations, get a complete history from the patient, depending upon what stage he is in. It must also be remembered that the first symptoms may come on some time after withdrawal has been stopped, and while the patient is indulging in natural coitus. He may not consider withdrawal as an etiological factor, and will not mention it, or even deny it, unless properly questioned in this regard. He may even tell you that previously, while indulging in withdrawal, his coitus was better than at present. The reason for all this is easy to understand from a consideration of the pathology. It takes some time for the centers to become exhausted, and every act of coitus, even natural coitus, aids in the exhaustion process, once the pathological conditions previously mentioned are forming. So that, while he was practising withdrawal, the process had not yet reached the final stage. As long as he remains untreated, especially while irritating the parts by even natural coitus, the pathological processes will progress to complete exhaustion and impotence.

It has been customary to classify functional impotence as either paralytic on the one hand, or due to irritable weakness on the other. The general idea seems to prevail that they are separate and distinct conditions, and represent a directly opposite condition of affairs. My experience, however, in carefully investigating the sequence of events, as well as a consideration of the pathology of impotence, has long ago convinced me that this classification is improper, and that the two conditions are but different stages of the same disease. If we carefully question patients who are suffering from so-called paralytic impotence, we

will find that this condition was preceded by a stage of so-called irritable weakness. In other words, before they became totally impotent, they suffered from rapid and premature ejaculations. The pathology just gone into also explains this fully; we get, first, irritation of the erection center, and finally exhaustion. It is very important to bear in mind, for purposes of treatment, that both so-called irritable weakness and paralytic impotence are one and the same.

The statement is repeatedly made, that irritable weakness should be treated by sedatives such as bromides, while paralytic impotence requires stimulants such as strychnine. Later on I will show, under the heading of treatment, the fallacy of this method, and prolonged clinical experience likewise proves this method of treatment to be fallacious.

There is, however, a form of rapid ejaculation which is entirely different from the form just mentioned, and which can be readily distinguished from it, if we go carefully into the sexual history. Under this heading belong those cases of healthy adults who, with no history of neurasthenia, no history of excessive masturbation or other sexual excesses, yet, after a long period of continence, have such strong sexual desire that the entire process of coitus takes but little time. They have normal libido, normal erection, normal ejaculation, and normal orgasm. The whole picture represents *power,* not *weakness.* It is simply an intense desire for coitus in a powerful man, who goes at it so powerfully that he is quicker than under ordinary circumstances. The condition may be likened to a swift race-horse which can outrun all his competitors. The pic-

ture is entirely different from that of a man with feeble, rapid ejaculation, diminished libido, and lack of satisfaction from the act. In this case there is intense satisfaction from the coital act. Many men get into this condition every time they have coitus with a new acquaintance.

(3) Disturbance in the Orgasm.—The exact seat of the orgasm is not known, but, for various physiological reasons, it is believed to be due to the squeezing of the fluid through the ejaculatory ducts into the posterior urethra, through muscular action. In rapid ejaculation the orgasm is either diminished or may be entirely absent, for the following reason: When the erection center sends its impulses too rapidly to the ejaculation centers, the impulses which are sent out by the ejaculation centers are also weaker than normal. Therefore, the squeezing out of the fluid through the ejaculatory ducts becomes less intense and the orgasm is either diminished or absent. The patient obtains no pleasure from coitus, and his partner also suffers on account of the too short time of friction for her to get her orgasm. It is very often that this lack of experiencing the orgasm is the chief reason why the patient seeks medical advice.

Besides the symptoms mentioned above, there is an important group of cases whose symptoms cannot consistently be classified with any of the preceding groups—cases where there is an entire diminution of the whole process of coitus. To this class belong men who are otherwise healthy, never suffer from neurasthenia, but in whom the sexual functions appear very late, and last only a short time. They rarely masturbate, rarely have pollutions, have

very slight libido, and easily remain continent. They sometimes marry for economic or other reasons, and are impotent, but do not worry very much about their condition. These men would never seek a physician, were it not that they are driven there by their wives.

I cannot emphasize too strongly the necessity of recognizing the etiological basis of this condition. There is a congenital lack of sexual desire and power, which is the cause of the easy continence and the impotence in these cases. It must be recognized that these cases are *born and not made,* and that the continence is due to the same lack of sexual vigor as the impotency. I emphasize this fact, because some authorities, reasoning entirely from the previous history, but in a superficial manner, desire us to believe that the long period of continence is the cause of the impotency. I believe with Sturgis,[120] and many other prominent authorities to be mentioned later, that continence is never a cause of impotence. By continence, however, I mean not only abstinence from sexual coitus, but also abstinence from any of the factors which arouse the sexual passion (spooning, dalliance, caressing, etc). Absolute abstinence from all such factors is perhaps an impossibility, especially in large cities, which abound in erotic literature, erotic shows and moving pictures, etc.; but even in these cases of relative abstinence, impotence never occurs. It is only in those cases heretofore described (page 75) where, on account of long engagements, a man will fondle a girl for hours, and keep this up every night for months at a time, that *temporary* impotence might result.

Besides the local symptoms just mentioned, due to and

part of the impotence itself, there is a series of local symptoms which are generally mentioned in connection with impotence, but which have really nothing to do with it. In most of the cases the same pathological condition in the posterior urethra, the prostate and seminal vesicles, which is responsible for the impotence, is also responsible for the other symptoms. It is just as logical to consider the lancinating pains of locomotor ataxia to be due to the impotence which is also present in locomotor ataxia, as to consider the symptoms about to be described as symptoms of impotence. In both cases, both are simply due to the same underlying cause.

But, while appreciating that such symptoms are *not* symptoms of, but only symptoms often accompanying impotence, it is well that they should be mentioned here, and for the following reasons: After all, we are called upon to treat the patient rather than the disease. Very often the patients complain much more about these accompanying symptoms than of the impotence. Very often, also, these accompanying symptoms precede the complete exhaustion of the sexual centers for a long time, and by bearing these facts in mind, and going into the history in detail, we may sometimes arrive at a diagnosis of incipient impotence, and be able to treat the same, before the patient has really appreciated the gravity of his condition. Sometimes, too, these accompanying symptoms give us a clew to the pathological processes at work which not only cause them, but which also cause the impotence.

Prominent among these symptoms may be mentioned *frequency of urination* and also *burning on urination,* as

well as *pain, mostly at the end of urination. Vesical tenesmus, incontinence of urine* as well as *difficulty in starting the stream of urine,* and *dribbling* after urination are also occasionally met with. All these symptoms are due to the congested and irritated condition of the mucous membrane of the posterior urethra, as well as to the general hyperemia of all the pelvic organs which is found after a long period of withdrawal or masturbation. *Pollutions,* either nocturnal or diurnal, as well as *defecation and urination spermatorrhea* are very often accompanying symptoms of impotence, but as these will be discussed in a separate chapter, no further mention will be made of them here.

General Symptoms.—There is a long train of symptoms, too numerous for description, which is common to all forms of impotence from whatever cause, and which may be described under the general term of sexual neurasthenia. Of this character are pains in the legs, pains over the eyes,—in fact, pains in any and every portion of the body. General weakness, headache, vertigo, and almost any kind of or combination of symptoms is met with. As a practical point in interpreting these symptoms, care must be taken not to blame everything on the sexual neurasthenia, but to look out for possible errors in refraction, or errors in digestion, etc., as their cause.

Besides the above constitutional symptoms, there is another long list of *psychic* symptoms which has been very graphically and artistically described by German and French authors. I will not attempt to give here a graphic description of the miseries and psychic emotions of the impotent man, but will simply state that this condition is at times

the cause of the most extreme unhappiness, and not infrequently leads to suicide. In fact, it has been pointed out by those who have investigated the subject, that not a few of the mysterious suicides, committed by apparently happy and contented men shortly after marriage, were due to their discovering that they were impotent.

Diagnosis.—For a proper diagnosis of functional impotence, it is necessary to take the entire sexual history of the patient into consideration. It is not sufficient to say that the patient is impotent; he knows that himself; but we must diagnose whether it is the erection center that is at fault, or the ejaculation center, the libido or a combination of all of them. It may even, at times, be necessary to interview or even examine the wife. This is especially important in the newly married. In one case that came under my observation, where a patient had been under treatment by several other physicians for some time for impotence, an examination of the wife by me revealed the fact that she was suffering from vaginismus, for which reason the husband could not enter, in spite of fairly strong erections. Sometimes other malformations about the female genitals prevent the penis from entering, until the unfortunate man finally becomes discouraged and may be rendered temporarily impotent from his ineffectual efforts.

In every case of impotence, we should examine for locomotor ataxia or other nervous condition which may cause it.

Prognosis.—The prognosis varies considerably in the different conditions. It is generally good in men below 45 who have been able to perform normal coitus before their

present impotency. It is very poor in cases of congenital lack of sexual desire and vigor. Wherever a man has always been sexually weak from the very commencement of his sexual life, and has superimposed upon this congenital weakness the evil influences of withdrawal or excessive masturbation, the prognosis is unfavorable. It is also not good in men past 50, or in men with a neurasthenic history to which the evils of sexual neurasthenia have been added. The prognosis is very good in those acute forms of impotence due to overindulgence in coitus, as well as in impotence from ungratified sexual passion, and in the ordinary cases of impotence from withdrawal or excessive masturbation in which there is no underlying condition of general neurasthenia. The prognosis is naturally poor in the confirmed sexual invert.

Treatment.—In order to properly treat the condition under consideration, we must have a clear conception of the pathological state of affairs and the causes which produced them. What then is the condition of affairs in the ordinary case of functional impotence? There are hyperirritated or exhausted sexual centers depending upon the stage of the disease, and a chronically inflamed posterior urethra with congested or inflamed seminal vesicles and prostate. The first indication is absolute sexual rest in order to give the exhausted centers time to recuperate, and to remove every cause of irritation, which includes the treatment of the diseased posterior urethra and prostate and seminal vesicles, for, as has been shown heretofore, these diseased organs are constantly bombarding the sexual centers with impulses, even in the absence of sexual intercourse.

The first indication is met by not only abstaining from coitus, but from every act which might excite the sexual passion. The husband should not sleep in the same room with his wife if possible, certainly not in the same bed. He should especially be cautioned against spooning, for, if not told, some men have the impression that they may indulge in any sort of sexual play, as long as they omit actual coitus. The length of time he should abstain from coitus varies in different cases. As a general rule it may be said that young and vigorous men should be kept continent for from three to six months, while men past 45 should be allowed coitus much sooner, for fear of a complete dying out of the sexual impulse.

Besides the abstinence from coitus, the patient should also abstain from all alcoholics, as well as from tea, coffee, eggs and oysters, for all these stimulate the sexual apparatus and centers.

At this time nothing is so useful as the internal administration of the bromides in large doses. At least 15 grains should be given three times a day well diluted after meals. The object of this is to quiet the irritated centers, and at the same time to remove all sexual desire for the time being, This should be given even in the paralytic stage of the disease, and not reserved for the cases of irritable weakness only. The large doses of the bromides should be kept up for at least two months in young persons and for one month in older patients, and then gradually reduced. It has been said that the administration of bromides may lead to impotence. Possibly the prolonged administration for years which may be necessary in epilepsy

or other chronic nervous affections may have this result, but certainly for the limited time given above no such result can occur. The patient should be fully informed of the object of the treatment, or else he is apt to be discouraged and tell you that his condition is getting worse instead of better. He will inform you that before he started treatment he had some sexual desire, while now he has none. As a matter of fact, this is just what is wanted, and is the main object of the administration of the bromides. The patient should therefore be informed of these facts at the very start.

At the very commencement of treatment, in fact at the first examination, we should inform ourselves of the condition of the prostate, seminal vesicles and urethra, especially the posterior urethra. For this purpose a routine genitourinary examination should be made, including a search for stricture and an endoscopic examination of the entire urethra. A routine urine examination should be also made to rule out diabetes as a possible etiological factor. In many of these cases we will find areas of congestion or other pathological conditions in the region of the verumontanum. The prostate and seminal vesicles will also often be found enlarged and sensitive.

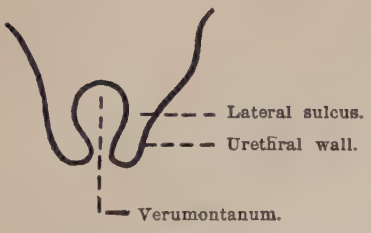
For the treatment of these pathological conditions in the posterior urethra, nothing succeeds so well as the instillations of weak silver-nitrate solutions through the Bangs sound syringe, just as in cases of masturbation. The instillations are given every five days, starting with a 1 : 3000 solution and increasing to ½%. The size of the sound is also increased till the largest possible can be taken. Should

there occur, at any time, too much irritation from the instillations, as evidenced by urethral discharge or very intense burning, the strength of the silver solution should be reduced. Of course if the endoscope reveals any gross pathological condition in the posterior urethra, such as cysts, vegetations, or similar conditions, these should be removed either by puncturing or other intra-urethral operation, which is very feasible through the modern posterior urethroscope. After the very acute condition of congestion has been removed by the above instillations, a few direct applications of very strong silver solution (10% to 20%) can be made advantageously to the diseased areas.

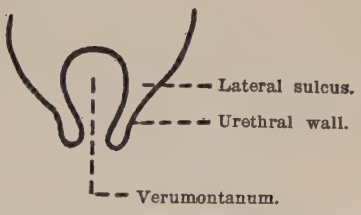
I have often been asked how the application of silver nitrate to the verumontanum could possibly cure impotence. To this I must answer that the application of silver nitrate to the *normal* verumontanum can only do harm, but he who has looked through the modern endoscope and has seen the pathological conditions present can readily understand how the removal of these conditions can have a beneficial effect upon the coital act. I desire especially to emphasize the fact that the treatment is not psychic, although the introduction of the lighted endoscope cannot help having a psychic effect on the patient. The treatment and the good results of the treatment are due solely to the removal of the pathological conditions present. The indiscriminate application of strong caustics to the verumontanum, practised years ago as a cure for impotence, has deserved the severe censure which it has received, but the rational treatment of the diseased areas which can be so distinctly seen through modern instruments is of distinct benefit to the patient.

One must have considerable experience in posterior endoscopy, however, before he can recognize what is pathological and what is normal. The verumontanum, like the trigone of the bladder, is *normally* redder than the surrounding parts, and the inexperienced observer is likely to consider the normal verumontanum to be congested or inflamed. The same holds good also concerning its size. We must remember that the normal verumontanum varies greatly in size and shape in different individuals. In the colored race, for instance, where all sexual organs are markedly developed, I have noticed that the verumontanum is much larger than in white persons. I have evolved the following rule as a guide: we must not be guided by the absolute size of the verumontanum, but by its size in relation to the posterior urethra in which it is found. In other words, a verumontanum, which almost completely fills the prostatic urethra, showing little if any signs of lateral sinuses, that is to say, if it almost touches the walls of the urethra on either side, is to be considered considerably enlarged. One can easily appreciate how such a verumontanum must keep on tickling the walls of the prostatic urethra even in the absence of coitus, and also how irritating it must be when rendered more congested during the coital act.

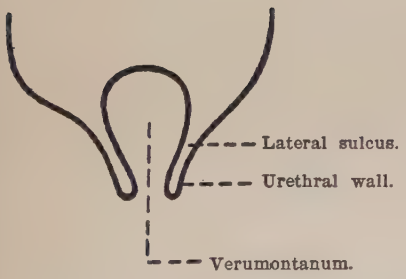
It must be remembered that the posterior endoscope only shows the pathological condition of the posterior urethra, and that similar pathological states are found in other conditions such as masturbation, satyriasis, etc. In other words, *one cannot make a diagnosis of impotence by merely looking through the endoscope.*



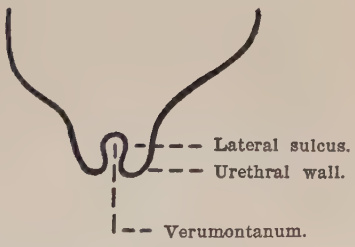
1. Normal verumontanum.



2. Moderately enlarged verumontanum.



3. Very enlarged verumontanum.



4. Atrophic verumontanum.

Diagrammatic pictures of normal and diseased verumontanum.

At the same time that we are treating the pathological conditions in the posterior urethra, we also treat the enlarged, congested and sensitive prostate, and seminal vesicles, by *gentle* massage every five days. *Gentle* massage is an art which requires much practice to obtain. It is a pity that any manipulation of the prostate is designated by the term massage. This is really a mistake. When we manipulate the prostate in cases of gonorrhea in order to get out its secretions for diagnostic or therapeutic purposes, we are justified in using quite hard pressure, but this process ought really to be called *expression* instead of massage. Such procedure is entirely different from what the one now under consideration should be. It must be remembered that the object of the manipulation is not to squeeze out every drop of secretion from the prostate, but to relieve the congestion and to help the exhausted muscles of the prostate to regain their tone. In other words, massage in the same sense in which that term is used when applied to other portions of the body. Using powerful pressure on the inflamed and sensitive prostate is no more massage of that organ than punching a man in the belly would be considered massage of the abdomen.

This combined treatment—to wit, abstinence, restricted diet, bromides, intra-urethral treatment, and prostatic massage—should be kept up for several months, depending upon the age of the patient, the stage of the disease, and also the reaction to the treatment. During this time his general health should receive the closest attention. A liberal and easily digested diet, largely made up of cream and other fats, should be ordered. Constipation must be relieved, as

it tends toward interference with the return pelvic circulation and thus makes for local congestion. Tonics and outdoor exercises should be ordered where feasible. A very useful adjuvant is cold baths or cold spinal douches. These are to be taken only in the morning and never at night. Hot baths are positively injurious.

If at any time frequent pollutions occur, we must at once suspend massage of the prostate; otherwise this procedure is to be kept up at increasing intervals, until that organ is no more congested and its sensitiveness is gone. One must have some experience however in deciding these points, as we can always squeeze hard enough, even on a normal prostate, to cause pain.

When we have decided that the sexual centers have fully recuperated, and observe that the posterior urethra as well as the adnexa are normal, we stop the bromides and turn to sexual stimulants. I have tried most of the drugs recommended, but have gradually narrowed down my medical armamentarium to two drugs, namely, strychnine and yohimbin. Strychnine nitrate is to be preferred, although where this is not obtainable the sulphate acts almost as well. I have become convinced that those who have not obtained good results from this drug have not administered it in the proper way or dosage. Many years ago, that great clinical observer, Abraham Jacobi, stated that the dose of this drug for children is generally put down as much too small, and I have come to the same conclusion in regard to its use in adults. Where coitus is indulged in during the night, I order $^1/_{20}$ grain of either strychnine nitrate or sulphate to be taken at 5 P.M., 7 P.M., 9 P.M., and

11 P.M. Although the patient thus gets gr. $^1/_5$ in six hours, I have never noticed any bad effects from it. At first there may be some headache, but this soon passes off, and the patients frequently tell me that they sleep much better than before. It should be stated here, that strychnine has no direct effect upon the sexual desire. All it does is to make the penis stiff so that it can enter the vagina and remain in the erect condition during coitus. Frequently the penis even remains stiff after coitus is completed, and comes out in an erect condition also. Yohimbin acts very well within certain limitations. It must not be given so long as premature ejaculations continue, or where frequent pollutions complicate the impotence. It is not to be given continuously, but should be given for from one week to two weeks at the utmost, in doses of 1 tablet three times a day. Its chief indication is after a long period of sexual continence, and when the erection center has been completely rested. The rested center will now react splendidly to this drug and the first and much feared coitus will be successful. Some authors recommend it to be given subcutaneously. Lissman[77] reported excellent results with the epidural injection of yohimbin solution, even in cases where the tablets had failed. I have had no experience however with either the subcutaneous or epidural method of administering yohimbin; but, given in tablet form at the right time and within the limitations above mentioned, it has generally worked very well.

I desire to record here some experiments I have made with tincture of cantharides in cases of impotence. It is well known that this drug, if taken in large enough doses

may cause priapism, for which reason it had often been given for the purpose of bringing on erection. The drug is, however, a very powerful irritant to all mucous membranes. If taken internally, in sufficiently large doses, it causes a gastroenteritis, a nephritis, and an intense inflammation of the mucous membrane of the bladder and urethra. It is by causing this inflammation of the genitourinary mucous membrane that the erections are brought on, and death has at times resulted from its use for this purpose.

Several years ago it occurred to me that if cantharides has this effect, what is the necessity of administering it in poisonous doses, thereby causing gastroenteritis, nephritis, and cystitis in order to bring a sufficient quantity of the drug into contact with the mucous membrane of the urethra in order to cause erection, when by means of the endoscope or with the syringe the drug may be applied directly to the urethral mucous membrane? Accordingly, I started my experiments with very weak solutions, and gradually increased the strength, until it became evident that about a 50% or at most a 75% solution of the tincture of cantharides was as strong a dosage as could be given by instillation. I even made direct application of the pure tincture of cantharides to the verumontanum, and, while irritation was produced, as shown by a sense of burning and frequency of urination, there was never the slightest indication of erection. No harm resulted to the patients from these experiments. Cantharides given internally may possibly be excreted with the urine in some peculiar chemical combination, or may form some chemical combination in the blood, which is excreted in such a form as to irritate the erection

center and thus cause the priapism. A search through medical literature for some explanation as to how cantharides is excreted threw no light upon the subject. To those who have access to physiological laboratories, it might be interesting to work out this problem, or the experiment may be tried by giving rabbits or other animals poisonous doses of cantharides, and then collecting their urine, to ascertain what effect this urine may have if applied directly to the posterior urethra.

The treatment of those cases in which there is a congenital lack of sexual vigor is very unsatisfactory, and all we can do is to conserve whatever power they have, by warning them against excessive coitus and withdrawal.

It is very important to impress upon patients that the best we can do is to get their organs into normal condition, but that we cannot so educate their organs that they can abuse them without coming to grief. In other words, if we have succeeded in curing the impotence which was caused by *coitus interruptus,* the patient must be made to understand that if he resumes the practice he will surely relapse, and the same is true of the other etiological factors.

CHAPTER VI.

III. PSYCHIC IMPOTENCE.

Definition. Etiology. Pathology. Symptoms. Misdirected libido. Inhibited libido. Diagnosis. Prognosis. Treatment. Impotence in the female. Definition. Etiology and pathology. Obstructive impotence. Neurotic impotence. Symptoms. Diagnosis. Prognosis. Treatment.

Definition.—Psychic impotence is that condition in which the impotence is caused by inhibitory influences from the higher centers. While in organic impotence the trouble is with the end-organs, and in functional impotence it is generally the sexual centers which are at fault, in psychic impotence there are healthy end-organs and healthy centers, but the actions of the centers are interfered with by inhibitory influences. Groag[43] justly calls attention to the fact that the term has been very unhappily chosen, inasmuch as some of the other forms of impotence are also partially psychic, and he therefore suggests the term "inhibition impotence" instead.

Etiology.—Any act or factor which can influence the imagination may be the cause of sexual inhibition. Among the more common factors may be mentioned fear of venereal disease, fear of pregnancy, fear of being caught in the act, fright, disgust of the partner, fear of being impotent on account of youthful masturbation, etc. Among the unusual causes may be mentioned joy, as in a case reported by Roubaud where a man became impotent on hearing that he won a large sum of money in the lottery; marital indif-

ference, as in a case mentioned by Sturgis[120] in which the wife considered the conjugal act to be vulgar and indecent, and during coitus indulged in running comments upon the performance; superstition is reported in a case by Hammond, where a man believed his wife had given him a certain glance to make him impotent while away from home; the celebrated case mentioned by de Caux, in which a mathematician was always diverted from coitus by a certain geometric problem coming up at the psychic moment.

Pathology.—In ordinary coitus, as soon as the libido is aroused, an impulse is sent from the cerebrum (*C*, Fig. 1, page 67) to the erection center (*R*) and erection occurs. In the condition under consideration the libido is normal, and may even be very powerful, but inhibitory impulses are sent from other cerebral centers to *C*, preventing it from sending impulses to the erection center (*R*). In those cases where erection has already commenced, the inhibition is transmitted further from *C* to *R*, thus stopping the forming erection.

Symptoms.—There are two forms of psychic impotence: (1) misdirected libido; (2) inhibited libido.

1. *Misdirected Libido.*—(*a*) Sexual perverts. Normally the libido of a mature man is directed toward a female. If, however, the libido is directed toward any other source, the person is a pervert. Sometimes such men marry for social or economic reasons, but the presence of the wife does not excite in them the libido, and they are impotent. The seat of the trouble is probably in the cerebrum (*C*).

(*b*) Impotence of the roué. On account of too frequent coitus, these persons find no longer pleasure in normal

coitus, and therefore seek for stronger and stronger methods of excitement in order to cause erection (Moll's excitement hunger). According to our diagrammatic scheme, the impulses from *C* (cerebrum) to *R* (erection center) are too weak during normal coitus to excite *R*, so that a strengthening of the impulses, through the addition of new psychic excitements, is necessary.

(*c*) Relative impotence. Under this heading may be mentioned those cases where the husband, after many years of married life, becomes impotent with his wife, though perfectly potent with other women. To this class also belong those curious cases, where men are potent only with certain types of women, either blondes or brunettes or other physical characteristics, and are impotent with all other types of women. Also those cases in which the man can only indulge in coitus if the woman has a certain kind of dress on, or her hair done up in a certain way. Groag[43] rightly remarks that the term has been very unhappily chosen, as the two previous kinds of impotence just described are also cases of relative impotence.

The three forms of impotence due to misdirected libido just mentioned are sometimes classed under functional rather than psychic impotence.

2. *Inhibited Libido.*—The symptoms have already been partly described with the etiology. The person has normal or even intense libido, but just at the exciting moment either the erection fails to occur or if it has started it suddenly ceases. At each further attempt the same thing occurs, and may even be worse. The same train of neurasthenic symptoms may follow this condition, as has been

mentioned in the other forms of impotence. As far as the patient is concerned, he is just as unhappy as if the impotence were caused by the most pronounced organic or central lesion.

Diagnosis.—The diagnosis can only be made by a careful consideration of the patient's history, together with a most careful genitourinary examination, as well as a general examination. Cases which at first blush seem to be obvious cases of psychic impotence may, on careful examination, turn out to have a definite organic or functional etiology. The most important points in the diagnosis are the presence of normal libido, the absence of organic defects or diseases, the absence of a history of *coitus interruptus* or other unnatural sexual excitation, and the presence of a definite psychic history.

Prognosis.—The prognosis is generally excellent.

Treatment.—The treatment is entirely psychic, but this does not mean that the patient should be neglected. It is a grave mistake to tell the patient there is nothing the matter with him, or even to laugh at him. For this reason as well as for proper diagnosis it is well to carefully examine him, because the thoroughness of the examination impresses the patient and helps toward the cure. Endoscopic examination, in which the patient sees the lighted instrument enter the canal and appreciates that the physician can see everything inside, is especially impressive. Electricity has here its greatest value. It is this form of impotence that has been cured by anything varying from a bread pill to Christian Science. Hammond has been successful by giving the patient some indifferent pills, telling

the patient that he may sleep with his wife, but under no circumstances indulge in coitus until all the pills have been taken. Very often the patient breaks the rule and finds himself potent. It may be necessary to instruct the wife and have her assist in the coital act, and by her common sense in many ways also. In the case of the mathematician above referred to his wife cured him by making him partially intoxicated before coitus. A change of scene or even different lodgings has resulted in a cure.

IMPOTENCE IN THE FEMALE.

Definition.—Impotence in the female may be defined as that condition in which the entrance of the male organ for copulation is impossible.

Etiology and Pathology.—We may recognize two forms of impotence: (1) obstructive and (2) non-obstructive or neurotic.

1. *Obstructive Impotence.*—Here there is some mechanical obstruction to the intromission of the penis, or an absence of the parts. Passing from without inward there may be present such conditions as *abnormality of the hymen* in which this organ is of excessive strength and rigidity; also imperforate hymen; *adhesions between the labia majora or labia minora,*—these adhesions may either be congenital or acquired; *excessive size of the labia majora,* as in elephantiasis; *new growths* about or in the cellular tissues of the external genitals; *Hottentot apron,* or hypertrophy of the nymphæ, is occasionally met with; *hypertrophy of the clitoris* has also been found to attain such enormous dimen-

sions as to interfere with coitus; *absence of the vagina, stricture of the vagina,* either acquired or congenital; *irregular ligamentous bridges* sometimes form in the vagina as the result of tears on opposite sides of the vagina; *tumors of the vagina; duplication of the vagina; extreme narrowing of the vagina* sometimes accompanies marked pelvic contraction. In rare cases the vagina may be occupied by a markedly elongated and hypertrophied cervix, by inversion or prolapse of the uterus, by uterine polyp, and by cystocele or rectocele. These latter deformities must be extreme to interfere with coitus, as I have seen very marked cases of all these latter deformities without however interfering with coitus.

2. *Non-obstructive or Neurotic Impotence.*—In this class of cases the male organ can enter the vagina, but causes such extreme pain or calls forth such violent spasms of the muscles that coitus is impossible. Under this heading may be mentioned vaginismus, dyspareunia and all the etiological factors which are mentioned under these conditions (see chapters on Vaginismus and Dyspareunia).

Symptoms.—The only symptom is the inability of the male organ to enter the female genitals: there may be other symptoms present (see Dyspareunia and Vaginismus), but these are due to the pathological condition and not to the impotence. As a general thing, impotence in the female does not bring with it the long train of neurotic symptoms which have been described in the male.

Diagnosis.—The important thing is to diagnose the cause of the impotence.

Prognosis depends upon the ability to remove the cause.

Treatment.—The treatment of the obstructive form is mainly surgical. Even complete absence of the vagina has been cured by forming an artificial vagina from the surrounding tissues, with the help of skin-grafts. For the treatment of the neurotic forms see the chapters on Dyspareunia and Vaginismus.

CHAPTER VII.

POLLUTIONS IN THE MALE.

Definition. Author's definition. Diurnal pollutions. Nocturnal pollutions. Defecation spermatorrhea. Urination spermatorrhea. Urethrorrhea. Prostatorrhea. Confusion in terms of various authors. Etiology. Prostatic massage a cause of pollutions. Results of masturbation a cause. Normal pollutions. Pathology. Physiology of coitus. Local pathology. Pathology of defecation spermatorrhea. Opinions of various authors. Author's opinions. Pathology of urethrorrhea. Symptoms. Quack literature. Pollution dreams. Practical importance of pollution dreams. General symptoms. Diagnosis. Prognosis. Prophylactic treatment. General treatment. Bromides. Deep instillations. Psychrophore. Pollutions in the female.

Definition.—Under this heading I include any involuntary semen-like discharge coming out of the penis and not connected with coitus.

I have purposely made this definition a very broad one in order to include all discharges which have been classified as spermatorrhea, involuntary seminal emissions, prostatorrhea, defecation spermatorrhea, urination spermatorrhea, and *urethrorrhœa ex libidine sexuale.*

I have done this in order to simplify the subject, which has been unnecessarily complicated by distinctions and pathology which do not exist, except in the case of urethrorrhea, which is distinct from any of the other conditions.

Many authors make a distinction between spermatorrhea and pollutions, but, from both a clinical and pathological point of view, this is erroneous, and unnecessarily complicates the subject. It may be interesting to examine the discharge for spermatozoa, but no deductions can be made

therefrom. When we consider that (except in urethrorrhea) the discharge comes into the urethra through the ejaculatory ducts, and that the seminal vesicles are a storehouse for the spermatozoa in the intervals of coitus, we can easily understand that spermatozoa may be found in any such discharge. Even those who try to make a distinction between discharges with, and those without spermatozoa, make the significant statement that many examinations are necessary, and that the absence of spermatozoa from the discharge does not prove that the condition is not spermatorrhea, as in this condition spermatozoa may be absent for a time. They further admit that in what they distinguish as pollutions, spermatozoa may also be present from time to time.

Pollutions may be either diurnal or nocturnal. Pollutions which accompany defecation are called "defecation spermatorrhea," while a semen-like discharge coming after urination is called "urination spermatorrhea." The term "wet dreams" is often applied to pollutions, especially by the laity, on account of erotic dreams which so often accompany this condition, but such dreams are very often absent. Prostatorrhea is a term which is applied to a discharge which is supposed to come purely from the prostate, but without any inflammation of this organ.

When we consult the various authorities who try to make a distinction between the various conditions above mentioned, we not only find the greatest difficulties in endeavoring to understand the points in differential diagnosis of the various conditions in the writings of any one author, but also the greatest confusion among the various

authors themselves. Thus, the very point put down by one authority as the most important differential diagnostic point in any condition is mentioned by another authority as the most important in another condition. From a long and careful clinical observation of these conditions, however, and a careful study of their pathology, I have come to the conclusion that this complication of terms is entirely unwarranted, and, from the standpoint of treatment, entirely unnecessary.

Urethrorrhœa ex libidine sexuale, on the other hand, differs from the above, in being purely a secretion of Cowper's glands and those of the urethral follicles and glands, called into action by sexual excitement just as in normal coitus, but without the coitus being indulged in.

Etiology. —Any factor which either causes a distention of the seminal vesicles or irritates the prostatic urethra or the glands of Cowper or the urethral glands may cause pollutions. Among such factors may be mentioned ungratified sexual excitement, *coitus interruptus,* the results of masturbation, excessive horseback riding, excessive bicycle riding, or inflammations of the posterior urethra. Among the rarer causes may be mentioned rectal worms and epilepsy. Hamilton has called attention to the fact that in rare cases a pollution may also be the expression of an epileptic seizure.

A very frequent cause of pollutions, and one to which little, if any, attention has been paid as an etiological factor, is massage of the prostate with stripping of the seminal vesicles. I have very often found pollutions to appear after this procedure, whether done for gonorrhea (expression for

diagnostic or therapeutic purposes) or whether done as part of the routine treatment in masturbation or impotence or other forms of sexual neuroses.

Attention should be called to the fact that in giving the etiology I have mentioned the results of masturbation and *not* masturbation itself. As a matter of fact, the patient, while masturbating, rarely has pollutions, for the simple reason that he does not give his seminal vesicles a chance to become distended. It is only after he has ceased the habit, and caused a congestion of his prostatic urethra, that, as soon as his seminal vesicles become distended, pollutions appear. It is often this appearance of these pollutions that frightens the patient, so that he returns to his masturbation or indulges in illicit coitus.

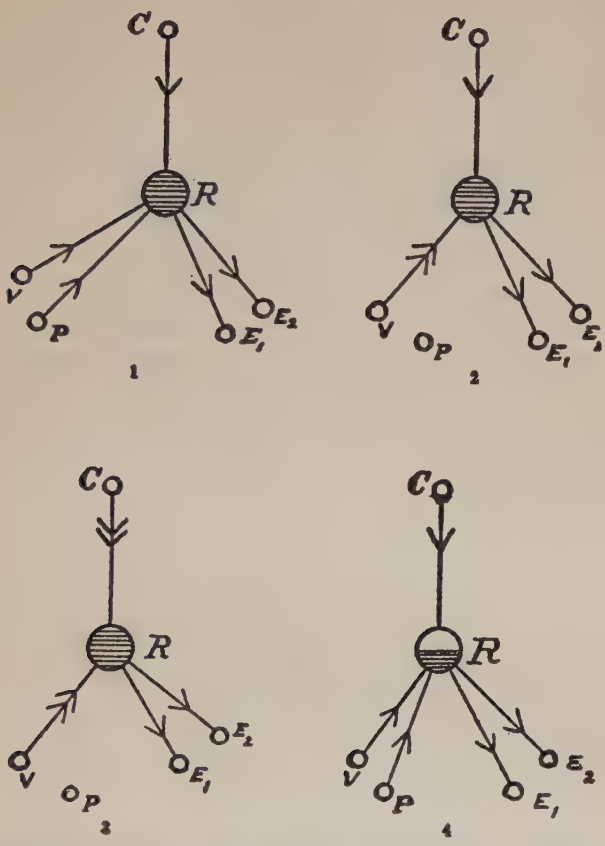
Nocturnal pollutions are perfectly normal if they occur at not too frequent intervals, and are not accompanied by a feeling of marked depression. It is difficult to state how many pollutions a person may have to be within normal limits, for the reason that the sexual passion and desire varies so much within normal limits. Furthermore, a man accustomed to coitus twice a week, and who for various reasons has remained continent, is entitled to more pollutions than one who has been in the habit of indulging only once in one or two weeks. As a general thing it may be said that as long as pollutions are only nocturnal, and occur with erect penis, not oftener than once in ten days, and are not accompanied by a marked feeling of depression, they may be considered normal. Rohleder[107] considers even two nocturnal pollutions a week normal. In considering the number of pollutions, one must not go by the number in

any particular week, but by the average of several weeks. Thus, it frequently happens that a patient may not have any pollution in seven or eight weeks and then have two or three in one week, or even in one night. This condition may still be normal, as the average for the eight or nine weeks is within normal limits. Diurnal pollutions, as well as defecation and urination spermatorrhea, are practically always pathological.

Pathology.—In order to understand the pathology of pollutions we must revert to the same scheme of the *modus operandi* of erection and ejaculation which has been given under Impotence.

We have shown (page 111) that the nervous mechanism of normal erection and ejaculation is as follows. As soon as the desire for coitus arises, impulses are sent from *C* (cerebrum) to *R* (erection center in spinal cord), which sends them through the dilator nerves to the penis until complete erection occurs (*i. e.,* dilatation of blood-vessels of penis, etc).

Now *R* (erection center) receives from *P* (glans penis during friction of coitus) continuous new impulses which serve to strengthen and keep up the erection. *R* has also the additional function of keeping back a part of the impulses it receives until its cells are filled to their utmost tension, and then only to send these impulses to E_1 (sympathetic ejaculation center, which causes the expulsion of the secretion of the sexual glands) and also to E_2 (spinal ejaculation center which controls the striated muscular fibers). The impulses that come from *P* (through friction of the glans penis during coitus) to *R* may be weaker, in



Diagrammatic scheme of the nervous mechanism of normal coitus, impotence, and pollutions. (After *Groag.*)

C, cerebrum; *R*, erection center; E_1, sympathetic ejaculation center (which causes the expulsion of the secretions of the sexual glands); E_2, spinal ejaculation center (which controls the striated muscular fibers); *P*, glans penis; *V*, seminal vesicles. The single arrow indicates an ordinary impulse; the double arrow, a very strong impulse. The transverse lines in *R*, in Figs. 1, 2, and 3, indicate that *R* sends out impulses to E_1 and E_2 *only after having been completely filled up with impulses,* while in Fig. 4 we see that *R* sends them out before it is completely filled up with impulses.

proportion as the impulses that come from *V* (distended seminal vesicles) are stronger. In other words, with markedly distended seminal vesicles we can get normal coitus even if there is less friction of the glans penis, for enough impulses are coming from the seminal vesicles to fill up *R*. As soon as *R* is so filled up (so completely distended) with impulses from *C*, *P*, and *V* that they overflow to E_1 and E_2, ejaculation takes place. In other words the erection center (*R*) has two functions, first, to receive impulses from the cerebrum (*C*), the penis (*P*), and seminal vesicles (*V*), and, in the second place, to hold back these impulses until the proper time and then to send them to the ejaculation centers (E_1 and E_2) so that ejaculation should come at the proper time and not too soon.

Let us now consider the physiology and pathology of pollutions according to the above scheme. This is graphically illustrated in Fig. 2. The diagrams show that Fig. 2 is the same as Fig. 1 except that the impulses from *P* (glans penis during friction of coitus) are absent, while those from *V* (distended seminal vesicles) are very strong (indicated by a double arrow).

We begin with an overdistention of the seminal vesicles. As a result of this, impulses are sent to the central nervous system and erotic dreams are formed, which are generally made up of the experiences of the patient. As a result of this dream, impulses are sent from *C* to *R* with about the same intensity as in normal coitus (Fig. 2). The impulses from *P* are absent. For this reason, in order to thoroughly distend the erection center (*R*), the impulses that run from *V* to *R* (very distended seminal vesicles

represented by a double arrow) must be *very* strong in order to cause an overflowing of impulses to E_1 and E_2 and allow ejaculation to take place.

So far this may be perfectly normal, if it does not happen at too frequent intervals. If, however, either as a consequence of masturbation or withdrawal or any of the other conditions mentioned in the etiology, either the cells of the cerebrum or the erection or ejaculation centers become hyperirritable, the whole process takes place at the slightest provocation (just as in rapid ejaculation) and it is not necessary for a distention of the erection center (R) with impulses to allow of ejaculation as in physiological pollution, for R is so hyperirritable that, at the slightest impulse from its various sources, it sends impulses to the ejaculation centers (E_1 and E_2) and immediately ejaculation takes place. The ejaculation centers may also become hyperirritable and go off at the slightest provocation. The cells of the cerebrum (C) may become hyperirritable likewise, and send to the erection center powerful impulses at the slightest suggestion of an erotic thought. Finally, just as in impotence, we may get an exhaustion of all the centers so that they will refuse to respond to any impulse. The pollutions become less and less frequent (without any treatment) and at length stop altogether. The patient considers himself improving and finally well, but, as a matter of fact, he is getting worse. Should such a patient at this stage attempt coitus he will find himself impotent. But this will be considered more in detail in giving the symptoms.

The pathology of diurnal pollutions is similar, and is diagrammatically illustrated in Fig. 3. Sometimes in the

waking state, in the presence of markedly distended seminal vesicles, strong long-continuing lascivious irritations may lead to strong erection and ejaculation. In Fig. 3 we notice the same condition as in Fig. 2 except that the impulses which come from the cerebrum (*C*) are exceedingly powerful (represented by a double arrow). Groag[43] considers this condition physiological, but I believe that in the waking state there ought normally to be enough inhibitory impulses present to prevent ejaculation. However this may be, there is no doubt that if, as in the former class of cases, the centers become hyperirritable, so that, as sometimes occurs, the mere sight of a pretty woman, or the mere touching of a woman in a crowded car, is enough to bring on an ejaculation, such a condition is to be considered markedly pathological.

That the seminal vesicles play the part described in the above condition has been proved experimentally, by Tarchanoff, in frogs. If he squeezed out the contents of the seminal vesicles in these animals, they lost all desire for coitus, but if he distended them with sperm from other frogs or even water, the desire immediately returned.

The local pathology is similar to that found in withdrawal or masturbation. There may be the same local conditions present in the posterior urethra as have been mentioned in these latter conditions. *As stated heretofore, one cannot make a diagnosis of either masturbation, withdrawal or pollutions, by merely looking through the urethroscope.* All that the urethroscope reveals is the pathological condition present in the posterior urethra, and this condition may be the result of widely different causes. Similarly,

any pathological condition in the posterior urethra or prostate or seminal vesicles, whether the result of gonorrhea, masturbation, withdrawal, maltreatment of the urethra or any other condition powerful enough to start reflexes to the cerebrum or erection centers, may be the cause of pollutions.

Finally we must state that the local conditions may be absolutely normal, and still pathological pollutions may take place. It has been stated above that for pathological pollutions to occur, there must be present a hyperirritable condition either of the cells of the cerebrum or of the sexual centers, or of the local pathological condition of the genital organs (congestion, etc., in the prostatic urethra). All of these conditions need not be present to cause a pollution, and it not infrequently happens that with a perfectly normal posterior urethra, as seen through the endoscope, pollutions may occur. As an example of such a condition we may mention cases where the patient has his thoughts continually upon sexual matters, and is constantly reading erotic literature, or seeking the presence of female companionship, while not actually indulging in sexual intercourse. Such a patient can so excite his cerebrum that pollutions will occur from that cause alone. If this continues for a long time, however, there generally results also a local congestion of the sexual apparatus in the same way as in masturbation, withdrawal, and similar conditions.

When we come to the pathology of defecation spermatorrhea, we find a marked difference of opinion among the authorities. The earlier writers claim that it was the result of the mechanical squeezing out of the contents of the sem-

inal vesicles by the passage of the fecal mass. Of late, however, there has been a tendency to discredit this theory. Peyer objects to it from the anatomical position of the seminal vesicles, which, he claims, because of their position between the rectum and the bladder, would be pushed out of the way by the hardened fecal mass, and not be directly pressed upon. Sturgis[120] believes it to be due, not to the pressure on the seminal vesicles by hardened feces, but to the mechanical pressure of the abdominal muscles incident to this act. Rohleder[107] considers the condition to be due to a paralysis of the ejaculatory ducts, and says that defecation spermatorrhea is caused by a mechanical squeezing out of the semen from the seminal vesicles due to weakness and insufficiency of the sphincters of the seminal vesicles and the ejaculatory ducts. He is of the opinion that with normal sphincters the hardest defecation will not be able to cause spermatorrhea. Ultzmann compares nocturnal pollutions to spasm of the bladder, and defecation or urination spermatorrhea to paralysis of the bladder, and says that nocturnal pollutions are really spasms of the seminal vesicles due to overdistention, whereas defecation and urination spermatorrhea is due to a paralysis of the ejaculatory ducts.

I am inclined to disagree with Rohleder and the other authorities just mentioned, in their conception of nocturnal (or diurnal) pollutions on the one hand, and defecation and urination spermatorrhea on the other. My dissent is based entirely upon clinical experience. If nocturnal pollutions were solely the result of contractions of the muscles of the seminal vesicles, or, as Ultzmann puts it, spasm of the overdistended seminal vesicles, it would hardly be con-

ceivable that they should recur as frequently as they do, for clinically it is not unusual for them to occur two, three, four, or even more times a week, sometimes three a night. One would imagine that after one or two emissions the seminal vesicles would be nearly empty, and certainly not overdistended. Then, if overdistention were the only cause of nocturnal pollutions, pollutions would be more common in married men (unless coitus is very frequently indulged in) than in single men, whereas just the reverse is the case. But to my mind the clinical therapeutical result is of most importance. As will be shown later on, in discussing the treatment of the condition, the most severe cases of nocturnal pollutions yield rapidly to the action of the bromides. I have yet to see a case of nocturnal pollution that did not yield (temporarily at least) to the administration of this drug. If, therefore, nocturnal pollutions were purely due to a spasm of the seminal vesicles, it is inconceivable that a drug which has no effect whatsoever upon local muscular spasm, but acts only by quieting the cells of the cerebrum and possibly the reflex centers in the spinal cord (although many neurologists even doubt this latter action), could so *uniformly* have such good results.

Another clinical observation, which I have made, likewise refutes the theory that a spasm of the distended seminal vesicles is responsible for nocturnal pollutions. In cases of chronic gonorrhea I have very often had occasion to frequently massage the prostate and strip the vesicles, either for diagnosis or treatment. As an invariable rule, this procedure, if frequently repeated, will bring on nocturnal pollutions where none had previously existed, and

will markedly increase the number of pollutions where they had existed only to a physiological degree. If spasm due to distention of these organs causes pollutions, it should naturally follow that emptying them ought to have just the opposite effect.

I have given the physiology and pathology of pollutions heretofore, and pointed out in that connection that the way distended vesicles act is not by a local spasm, but by reflex action alone, namely, by sending normal impulses to the erection center, just as pathological impulses are sent thither from a congested posterior urethra, and that, as a result of these impulses plus other impulses which the erection center receives from various sources (*i. e.,* cerebrum, penis, etc.), this center sends impulses to the ejaculation centers which result in ejaculations or pollutions, as the case may be. In massage of the prostate and stripping of the vesicles, we irritate these parts and send impulses to the erection center in the same manner. This pathology also explains the beneficial effects of the bromides on pollutions.

In defecation spermatorrhea I must likewise disagree with Rohleder, and again on purely clinical grounds. When Rohleder says that, with normal sphincters of the seminal vesicles and ejaculatory ducts, the hardest defecation cannot bring about a discharge from these organs, and when Peyer tries to prove the same thing from a consideration of the anatomical position of the seminal vesicles, the following *clinical* evidence may be presented in direct contradiction: I have had occasion in very many instances to strip the seminal vesicles in cases of chronic gonorrhea, either for diagnostic or therapeutic purposes. In most of these cases,

no pollutions or defecation or urination spermatorrhea was present; and yet, I have never failed to obtain a specimen from the prostate and vesicles for examination. In every case was I able to bring one or more drops (sometimes a large quantity) of the secretions of these organs to the meatus. If, then, in normal persons, with presumedly normal seminal vesicle sphincters, by simple pressure on the seminal vesicles with the finger-tips in the rectum, we can cause a discharge of their contents, why cannot a hard fecal mass in the same place do likewise? Furthermore, it often occurs that, in some cases, the slightest touch on these parts would bring forth a very large amount of seminal secretion (proven so by the microscope) where we would imagine that there must exist a very marked paralysis of the ejaculatory ducts or musculature of the seminal vesicles and its sphincters, and yet these patients have *not* been subject to defecation or urination spermatorrhea or even to nocturnal pollutions. I can neither affirm nor deny that in defecation or urination spermatorrhea there exists an insufficiency of the sphincters of the seminal vesicles, and certainly the *clinical* evidence is not sufficient to sustain this view. Those that uphold it have brought forth no evidence except their own theoretical opinion. To my mind, it is still an open question whether defecation or urination spermatorrhea is due to a reflex action set up by the act of defecation or urination, or whether it is due to insufficiency of the musculature of the seminal vesicles or ejaculatory ducts, or due to the mechanical pressure of hardened feces or to the mechanical action of the abdominal muscles upon the seminal vesicles. In urination spermator-

rhea, it is supposed that the muscular action incident to pressing out the last drops of urine also presses on the seminal vesicles and squeezes out part of their contents. As stated above, Sturgis[120] inclines to the view that defecation spermatorrhea is due to the mechanical action of the abdominal muscles incident to defecation, and cites in proof that the same condition may be produced by such acts as coughing and sneezing, but I have never seen such cases.

Some authors claim to have seen through the endoscope, in cases of pollutions, the mouths of the ejaculatory ducts widely dilated, thus proving the paralytic condition of the ejaculatory ducts. I have for several years made endoscopic examinations of the posterior urethra in cases of pollutions, using both the Wossidlo-Goldschmidt and Buerger instruments, but cannot subscribe to the observations of these writers. I have found the most marked differences in the appearances of the mouths of the ejaculatory ducts, not only in pathological but also in normal cases, and am certain that in pollutions these ducts are found on the average no more dilated than they are in other pathological or even normal conditions. As so often emphasized, *one cannot make a diagnosis of pollutions with the endoscope.*

The pathology of *urethrorrhœa ex libidine sexuale* is entirely different from the other forms of pollution. Here there is simply an overactivity of Cowper's glands and those of the urethra. Normally, at the very commencement of coitus, Cowper's glands, as well as the glands and follicles of the urethra, pour out their secretions into the urethra in order to remove the acidity which is generally

present there on account of moisture from urine, and which would be inimical to the vitality of the spermatozoa. In cases of urethrorrhea, there is an overactivity of these glands, so that the merest act of flirtation, or spooning, or even erotic thoughts, are sufficient to cause these glands to pour out their secretions, which then appear at the meatus. The condition is simply due to too great a response on the part of these glands to central stimulation.

Symptoms.—It not infrequently happens that quacks, for their own selfish purposes, grossly exaggerate the symptoms of *normal* pollutions. To offset this influence, some reputable physicians have thought it expedient to underrate the seriousness of pathological pollutions, and tell the patients that any pollution is of no importance whatsoever, and that the whole trouble is imaginary. Nothing could be further from the truth. Any one who has seen the marked neurasthenic symptoms that accompany severe pathological pollutions, even in patients with no underlying history of general neurasthenia, and how their general condition improves, and their whole psychic is changed, with the cessation of the pollutions, will appreciate that pollution is a very important condition and sometimes a very serious one, which demands our most earnest attention.

In normal cases the patient experiences during the night an erotic dream, which is accompanied by an erection of the penis and ejaculation. He is generally awakened during the process of ejaculation. Sometimes, however, he continues in his sleep, and upon awakening in the morning discovers that he has had an emission. In some cases no dream accompanies the ejaculation, or at least is not remem-

bered by the patient. *Normally* these emissions do not occur on the average more than once in ten days, and always occur with erection. They are not accompanied by any marked feeling of depression, sometimes, indeed, quite the reverse, with a feeling of contentment.

It often happens that the young man is frightened by this emission, thinking that he is losing his semen, that he will become impotent, and that the condition is due to his "youthful errors" of perhaps very many years before. Sometimes, without consulting a physician, he indulges in illicit coitus, thinking that the onset of the emissions is a sign that coitus must be indulged in. In this way he may become infected with venereal disease.

If he is wise he will consult his physician, who will give him the proper advice. If he is foolish, however, which is more often the case, he will seek out one of the many advertising quack physicians, who will not only confirm all his fears of impotence, "lost manhood," etc., but will frighten him more, call his attention to a normal sediment in his urine, explain to him that his vital fluid is being sapped out of him, etc., and may, and indeed very often does, make of him a confirmed sexual neurasthenic, watching himself closely, continually, and exaggerating every little pain or ache. I get these patients in large numbers at my dispensary clinic, after they have been relieved of all their savings by quacks, and it often takes considerable argument and tact to prove to these *normal* cases that they are not going to perdition.

The symptoms of pathological pollutions are somewhat different. The patients have pollutions two or three times

a week, often without erection. After the pollutions they complain of marked nervous symptoms and a feeling of depression to be described hereafter. The pollutions, if untreated, may even increase in frequency, but after a while they diminish and finally cease altogether without any treatment whatsoever. This the patient considers a very good sign, but as a matter of fact it is just the reverse. It means, as explained in the pathology, that the sexual centers have become completely exhausted, and fail to respond to any stimuli. Such patients, at this stage, will find themselves impotent.

The dreams that accompany pollutions, both normal and pathological, are very interesting and instructive. Porosz[94] has called attention to the fact that very often we can tell the course of the disease by the character of the dreams which accompany the pollutions. The dream is frequently an index of the potency of the individual. In normal cases, in persons who have already indulged in sexual intercourse, the dream is often an exact counterpart of the act of coitus. The patient dreams of courtship and spooning with a female, then the retiring, the preparation for coitus by both parties, the erection, the insertion of the penis into the vagina, the friction, and finally the ejaculation. The time between the commencement of the dream and the ejaculation is a comparitively long one. In pathological cases, as the disease progresses, this time becomes shorter and shorter. The patient dreams of spooning and coitus as above, but the ejaculation occurs at the very first attempts of coitus, and finally the patient only dreams of spooning, and wakes up at once with an ejaculation. Even in normal cases, where

two or three dreams occur in one week, the first dream may be a very lengthy one, as the first above described, while the latter ones become progressively shorter.

I have paid particular attention to these sexual dreams, and in many cases have obtained a typical history just like those recited. Often, however, especially in dispensary cases, the patients are too ignorant to give a sensible history of their dreams, and frequently, even in intelligent patients, the patients forget their dreams. The woman in the dream is generally one with whom the patient is acquainted, often the cousin or sweetheart, or it may be some stranger who happens to have made an impression upon the patient. Sometimes the patient does not dream of coitus at all, but of masturbating. Very often, also, the patient does not dream of women at all, but of some other object, the sexual nature of which can be explained by those versed in the Freudian theory.

As a practical point, and one which I do not recall having seen recorded anywhere, I have, for some time past, determined the patient's veracity as to his sexual experience by the nature of his pollution dreams. In my clinic I frequently encounter young adults who come for treatment of pollutions, and, upon the routine questionings, tell me that they have never indulged in coitus. Inquiring later on as to the nature of their pollution dreams they inform me that they dream of having coitus with a woman. In this case I immediately infer that the patient has had experience in coitus, and almost always can obtain his confession in this regard. With the exceptions later mentioned, *one cannot dream of coitus unless he has indulged in coitus.*

We must be careful, however, in jumping at conclusions and must go particularly into the history of the dream. For instance, I had one young man who told me that he had never indulged in coitus, but in his pollution dreams dreamt that he had connection with a woman. I asked him to describe his dream, and from his description saw that the man had the most ridiculous notion what the act of coitus consisted of. In other words, this young man, who had really been continent, dreamt of what to his mind was the act of coitus. In another case, upon careful questioning, I was told by the boy that he had seen in the park a couple indulge in coitus, and this picture came to him as a pollution dream. Another young man informed me that he had seen in Paris, at a "private" motion-picture theater, the entire act of coitus portrayed upon the screen. In many cases the boy's impression of coitus comes from the particular literature he indulges in, or from knowledge obtained from older persons, and in his pollution dreams the act of coitus is according to his knowledge of the subject. So that, while the rule just laid down, that one cannot dream of coitus unless he has indulged in it, is generally true, we must go into all the experiences of these patients in order to draw proper conclusions.

Diurnal pollutions I consider to be always pathological. They are most generally present in patients who also suffer from nocturnal pollutions. Indeed, it is rather rare to find patients who only suffer from diurnal pollutions. In these cases the very sight of a woman, or the rubbing up against one in a crowded car, is sufficient to cause an ejaculation of semen. In the vast majority of these cases there is very

slight, if any, erection. Sometimes the patient sees fluid appearing at his meatus every time he looks at it. This latter represents a much more severe type of pollution than either the nocturnal or the diurnal with erection.

In defecation spermatorrhea the patient notices that during the straining incident to defecation a discharge appears and runs out of the urethra. The quantity varies from a few drops to a dram. I must remark, here, however, that the patient's word as to quantity of fluid lost in pollutions of all kinds must be taken with a large grain of salt, as they are generally prone to exaggerate. In mild cases these losses accompany only severe straining efforts, or the passage of very hard fecal masses, whereas in the more severe cases they appear with every defecation, even when the fecal contents have been artificially made soft and watery by mineral cathartics, and are unaccompanied by any straining whatsoever. As a matter of clinical experience, I have frequently noticed these severe cases of defecation spermatorrhea to be the forerunners of the most obstinate cases of impotence, and conversely, in many cases of impotence that come to me for treatment, I have also obtained a history of defecation spermatorrhea.

In urination spermatorrhea the patient notices, after urination, a seminal discharge. Patients with urination spermatorrhea almost always suffer from nocturnal pollutions at the same time, and very often are afflicted also with defecation spermatorrhea. This represents, to my mind, the severest type of pollutions and is, of course, always pathological. As previously stated, it makes no difference whether spermatozoa are found in the discharge or not.

The *general* symptoms of pathological pollutions vary greatly in intensity. They are especially severe in patients with an underlying neurasthenic tendency. While patients suffering from pathological pollutions are very prone to exaggerate the importance of their symptoms, especially if they have read profusely the quack literature on the subject, we must not fall into the opposite error of thinking that they have no symptoms at all, and that their sufferings are only imaginary. I cannot too strongly emphasize the fact that these patients have real symptoms and that at times their sufferings are extremely severe. As in masturbation, we must here also determine whether the symptoms complained of by the patient are really experienced by him, or whether they are merely being repeated by him from the quack literature he has read.

One of the symptoms most frequently complained of is a peculiar feeling of lassitude, of diminished energy after the occurrence of a pollution. The patient wakes up dead tired, without any ambition, with no inclination for work, and feels as if he has been up all night doing hard work. He is entirely exhausted and fit for sleep rather than for the duties of the day. This peculiar feeling, which it is very difficult to describe in cold print, is very characteristic of pathological pollutions, and is entirely different from the sensations of a chronic masturbator or any other form of sexual neurasthenia.

Headache is another symptom often complained of, but, as in all forms of sexual neurasthenia, we must determine by competent authorities whether the headache may not be due to errors in refraction. In fact, every symptom of the

sexual neurasthenic must be investigated, with the possibility in mind of some other coexisting pathological condition being present to account for the symptom. While admitting that the sufferer from pollutions is liable to many and severe symptoms, we must not fall into the error of blaming everything he complains of on his pollutions.

Among the other more common symptoms may be mentioned burning of the eyes, discomfort in the inguinal regions, heaviness of the testicles, a feeling of faintness and palpitation of the heart, excessive perspiration, pain down the spine, and tremor of the hands. Loss of memory is frequently *complained* of, but upon careful investigation it will be found not to exist. Very often, however, there is a temporary weakness of memory due to indiscriminate use of bromides or an idiosyncrasy for this drug. Exceptionally, we find patients who come for other troubles, and whose history shows that they are subject to frequent pollutions, but apparently have no symptoms therefrom and do not bother about them. I have also noticed patients who have suffered from pollutions for many years, and in whom, at the beginning, the pollutions were accompanied by marked general nervous symptoms, but who, later on, seemed to become immune as it were, or callous, indifferent or apathetic and therefore did not suffer much from them.

In ordinary cases of pollutions the sexual powers of the patients do not suffer much, if any; yet, from a careful observation of many cases, I am firmly convinced that finally there occurs an impairment and temporary impotence in quite a number of cases. However, the condition is not nearly as bad as some authors try to make us believe, and

I am certain that in many cases these authors have misjudged or have not thoroughly studied the symptoms and history. It is undoubtedly true that many sufferers from impotence suffer from pollutions also; in fact, the two conditions may be due to the same pathological condition or have the same common etiology, but this does not mean that the impotence was the result of the pollutions

Among the urinary symptoms which often accompany pollutions, but which are often due to the same condition in the posterior urethra which is the cause of the pollutions, may be mentioned frequency of urination, scalding of urination, and a feeling of wishing to pass more urine after the bladder has been thoroughly emptied. Such a condition as mentioned by Sturgis[120] as shrivelled penis due to pollutions, I have never seen.

The list of symptoms just given are simply symptoms which one hears complained of, on going carefully into the history of *many* cases. I do not by any means mean to infer that any *one* patient complains of all or a majority of these symptoms. We may find a few or many of the symptoms in any particular case, as well as any combination of symptoms.

It is interesting to note what symptoms have been put down by some authorities as due to pollutions. Space will not permit me to mention all those which have been ascribed to this condition by one authority or another. The more unusual ones mentioned are: *difficulty in articulation, thickness of speech, burning and tingling at the end of the tongue, impaired taste, epistaxis, catarrhal discharge from the nose, salivation, tinnitus aurium, partial deafness, defec-*

tive accommodation, temporary hyperesthesia of the auditory nerve, asthmatic breathing; a constant, short, hacking cough; cardiac palpitation, intermittence in the action of the heart and pulse, angina pectoris nervosa, etc.

In *urethrorrhœa ex libidine sexuale* the symptoms are somewhat different. In this condition, as I understand it, there is simply a hypersecretion of Cowper's glands and those of the urethra. The patient, after a prolonged act of spooning, or other unsatisfied sexual excitement, will find some fluid just within or coming out of the meatus. Generally a prolonged period of erection has preceded this event, but there has been no coitus and no ejaculation. There is no force behind this fluid; it simply dribbles out. It is, as a general thing, not accompanied by any feeling of depression or other general nervous symptom unless the patient has been frightened by reading quack literature.

Diagnosis of Pollutions.—The main point is to distinguish between normal and pathological pollutions. The differential points are as follows: Normal pollutions are always nocturnal, whereas pathological pollutions may be either nocturnal or diurnal, and may accompany defecation or urination. Normal pollutions occur on the average not oftener than once in ten days, whereas pathological pollutions occur much more frequently. Normal pollutions always occur with strong erection of the penis, whereas pathological pollutions occur with very weak or no erection at all. Normal pollutions are generally not followed by a marked period of depression, whereas pathological pollutions are generally followed by such a feeling.

It might seem ridiculous to state that pollutions should

not be confounded with gonorrhea, but I have seen such mistakes made in not a few cases. In several instances, I have seen careless dispensary physicians prescribe for cases without any examination of the genitals at all, and the mere fact that a patient comes into the dispensary complaining of "running" or "discharge" is sufficient for them, without further examination, to conclude that the patient is suffering from gonorrhea and prescribe accordingly. In my private practice, also, I have had patients come with diurnal or urination spermatorrhea, who had been treated for gonorrhea by some careless physician. As a general thing the secretion which appears at the meatus in cases of diurnal pollutions or urethrorrhea is entirely different in appearance from that of an acute or even chronic gonorrheal discharge, but, aside from this difference in appearance, no physician should treat any urethral discharge without first subjecting it to microscopic examination. Even if no gonococci are found, the other characteristics of the discharge under the microscope are sufficient to differentiate the conditions.

Prognosis.—The prognosis of normal pollutions is, of course, excellent. In pathological nocturnal pollutions, the prognosis is very good also. We must not expect to stop the pollutions entirely in every case before marriage, but we can reduce them to normal limits. We can assure these patients that it is perfectly normal for a continent man to have a pollution once in ten days to two weeks. The prognosis in urethrorrhea is likewise very good under proper treatment. Diurnal pollutions are much more obstinate than the nocturnal variety, but finally yield to persistent

treatment. Defecation spermatorrhea is a much more serious condition than the forms previously mentioned, and urination spermatorrhea is the worst of all. Defecation spermatorrhea which is only present on severe straining, or after the passing of hard fecal masses, is hardly more important than nocturnal pollutions, but the variety which comes with every stool, even one watery in character, is very apt to be a forerunner of impotence.

The general prognosis is worse where there is a hereditary tendency to general neurasthenia. It is worse in cases coming on after 50 and accompanied by premature ejaculation or total impotence. The condition represents extreme hyperirritability of the sexual centers, and these centers at this age cannot stand much strain, and the resulting impotence is apt to become permanent.

The more excuse there is for a pollution, the less serious it is. Thus, a man who has been continent for several weeks is entitled to a pollution, and a man who has been spooning with his girl for hours has also a right to expect a pollution during the night. It is only those cases where pollutions occur with little or no sexual excitement, such as merely brushing up against a female in a crowded car, or merely thinking of one, which represent the more serious types.

In considering the seriousness in the prognosis of pollutions, I only refer to the possibility of impotence, and to the persistence of the general neurasthenic symptoms. Pollutions, no matter how severe, never endanger life, and there is not the slightest evidence that they ever lead to insanity or other serious nervous conditions.

Treatment, Prophylactic.—Boys approaching adolescence should be told of the probability of the occurrence of wet dreams from time to time, so that they may not be frightened at their appearance and run to the first advertising quack they hear about. It seems to be the opinion among young adults that the appearance of a pollution is a sign that their sexual organs are ripe and demand their exercise in coitus. This opinion should be very carefully warned against.

Every effort should be made to bring up the young man with as pure thoughts as possible, and to keep him away from suggestive literature and plays. It were well if he would abstain from alcoholics, especially beer, for these stimulate the sexual centers as well as the genitals themselves. He should partake as little of tea and coffee as possible. Cold bathing in the morning should be encouraged, but hot baths should be taken as little as possible, especially at night. He should empty his bladder before retiring, and arise as soon as he awakens, so as to diminish, as much as possible, the morning erection, which leads to erotic thoughts.

General Treatment.—The normal cases should be told, in plain and definite language, the significance of pollutions, their harmlessness if not too frequent, and the measures advocated in the prophylactic treatment just mentioned should be enforced if possible.

In patients suffering from pathological pollutions, the measures just advocated under prophylaxis *must* be enforced. There is little use in treating these cases if they will not abstain from alcoholics, tea and coffee, and all

kinds of sexual excitement. Spooning is especially to be interdicted.

The first thing to be done is to stop the pollutions. Nothing succeeds so well here as the bromides in large doses. I prescribe 15 grains of sodium bromide three or four times a day, well diluted after meals. The primary effect is really remarkable; patients with three or four pollutions a week will quickly drop to one in one or two weeks. The psychic effect of this rapid diminution in the pollutions is also well marked. As the pollutions decrease in numbers, the bromides should be given less and less often, until only at bedtimes, and finally should be stopped altogether.

At the same time we must relieve the congestion or other pathological condition in the posterior urethra. For this purpose I have tried various expedients, but have found the instillation of weak silver solution through the Bangs sound syringe to be best of all. The method is similar to that described in masturbation of the adult male (page 32). Very strong cauterization of the verumontanum, as recommended by some German authorities, I have found to be of no use whatever.

Nor have I found the psychrophore of much use in these conditions, but must admit that I have not tried it often enough to give a final opinion. According to German authorities it must be employed every other day from five to twenty minutes at a time. Now, in private practice, I have not been able to induce patients to come every other day when suffering from no other condition than pollutions, and in my dispensary class it takes entirely too much time

to give a large number of patients twenty minutes each, every other day for a long period. In the few dispensary cases in which I have conscientiously given it a trial, however, I have obtained no good results from its use, but, as stated above, the experiments have been entirely too few to warrant a decisive opinion. Even the German authorities, who have large experience with this method, say that some cases are made worse by it, and that they cannot tell beforehand whether it will benefit or harm in any particular case. They also concede that, even in cases where it does good, temporary impotence often follows.

In defecation and urination spermatorrhea, the bromides do not act as quickly or as positively as in the other forms. On the theory (which, as heretofore stated, has not been proven at all), namely, that the condition is due to a weakness of the sphincters of the ejaculatory ducts and of the seminal vesicles, as well as to a weakness of the musculature of the seminal vesicles, I have tried strychnine in small and large doses, but without any result. The main treatment in these cases is to avoid constipation with its accompanying straining at stool, the avoidance of the accumulation of hard fecal masses by proper catharsis, and the treatment of the prostatic urethra as above indicated.

In urethrorrhea it is only necessary to instruct the patients about the harmfulness of spooning, and their discontinuance of such and similar sexual excitements will generally bring about a cure. If necessary, a few silver-nitrate instillations in both the anterior and posterior urethra will usually cure the patient.

POLLUTIONS IN THE FEMALE.

Pollutions in the female are much less frequent than in the male, and also much less understood than the former variety. The fluid generally consists of the secretions of the Bartholinian glands. The condition in virgins is generally due to masturbation and in married women either to ungratifying coitus (premature or rapid ejaculation in the male) or to enforced abstinence on account of death, absence or impotence in the husband, in the cases of women with pronounced sexual passion.

Just as in the male, the condition may be accompanied by erotic dreams which are different in virgins than in married women, on account of the difference in the sexual experience. As is well known, there are many erotic zones in different parts of the female anatomy, the stimulation or irritation of any of which may give rise to either libido or pollutions. Just as in the male, these pollutions are the result of stimulation of the ejaculation center, and the impulses may come either from genitals or any other erotic zone, or from the cerebrum. Sometimes these pollutions are accompanied by the same feeling of depression and general nervous symptoms as in the male. The condition is not at all serious, and is relieved by bromides and cold baths.

CHAPTER VIII.

PRIAPISM.

Definition. Etiology. Priapism in children. Priapism in adults. Essential priapism. Pathology. Causes which act upon the erection center. Causes which act by removal of inhibition. Causes which act directly upon the tissues of the penis. Symptoms. Diagnosis. Course and prognosis. Treatment. Clitorism. Clitoris crises. Differentiation from pseudo-crises.

Definition.—Priapism is a persistent erection of the penis, unaccompanied by sexual desire, and usually very painful. Blum[14] defines it as "a stiffening or turgescence of the male organ, which lasts longer than a normal erection, and, instead of producing voluptuous feelings, is often accompanied by most unpleasant sensations of pain."

Etiology.—The condition may be brought on by very many different factors. We may classify the etiological factors as follows:—

Priapism in Children.—Due to vesical calculus, tight or adherent prepuce or rectal worms.

Priapism in Adults.—Due to (1) vesical or prostatic calculus, stricture, cystitis or retention of urine; (2) gonorrhea, and generally called chordee; (3) ingestion of cantharides; this is at present a very infrequent cause; (4) essential priapism (*a*) due to disease of the brain or spinal cord, (*b*) due to injuries of the perineal region, (*c*) due to alcoholic or sexual excesses, and (*d*) due to leukemia.

It should be noted that some authorities limit the term "priapism" to what has just been described as essential

priapism, and never consider the other forms by that name. Most modern authorities, however, understand by the term "priapism" any abnormally prolonged erection of the penis, unaccompanied by voluptuous feelings, irrespective of the underlying cause, and it is under this latter interpretation that the subject will be discussed herein.

Pathology.—The pathology varies with the underlying etiological cause. It can, however, be roughly divided into two classes as follows: (1) Causes which act upon the erection center in the spinal cord, either by direct irritation, by reflex action, or by removal of inhibition from the higher centers. (2) Causes which act directly upon the tissues of the penis, either by interfering with its circulation or by mechanical infiltration of the tissues with inflammatory products or with new growths. Often both these factors come into play at the same time.

1. *Causes which Act upon the Erection Center in the Spinal Cord.*—The center for erection is situated in the *conus medullaris,* and any lesion affecting it causes a loss of erection; an irritating lesion, however (a rare occurrence), may temporarily cause priapism, but paralysis soon follows. Priapism mainly occurs in supranuclear lesions of the cord. We may classify the pathology under this heading as follows:—

(*a*) By direct irritation of the center.

(*b*) By reflex irritation of the center.

(*c*) By removal of the inhibition from the higher centers.

(*a*) Causes which act by direct irritation of the erection center. In certain cases of injury to the spinal cord, in

which the injury is low down, the sexual center is so irritated that it is thrown into a state of chronic excitation. As stated above, this is a very infrequent occurrence and is of temporary duration.

In spinal syphilis mild priapism has been observed accompanying inco-ordination of the movements of the legs, girdle pain and hyperesthesia of the integument of the abdomen and back, all the symptoms being cured by anti-syphilitic treatment.[126]

In the early and middle stages of locomotor ataxia priapism may occur, and cease in the later stages of the disease.

Alcohol causes priapism in several ways:—

1. Local irritation and through the urine.

2. Removal of the inhibition of a normal cortex of the brain through psychic pathways.

3. Changes in the cortex, but mainly subcortex, due to the toxic effects of the alcohol; alcoholic periaxillar neuritis of the brain.

4. Effects of alcohol upon the peripheral nerves.

(*b*) Causes which act by reflex action on the erection center. Under this heading may be mentioned those cases of priapism which are met with in children due to vesical calculus, tight or adherent prepuce, and rectal worms, as well as those cases in adults due to vesical or prostatic calculus, stricture, cystitis, or retention of urine.

It is well known that even in normal persons the distention of the bladder during the night causes an early morning erection. It is therefore quite easy to understand how the constant irritation of the causes above mentioned

will bring about a constant erection, or, in other words, priapism.

In priapism due to cantharides poisoning, the intense irritation and inflammation of the entire urinary tract acts in a reflex way, in addition to the direct effect upon the tissues in causing the disease.

(*c*) Causes which act by removal of the inhibition from the higher centers. To this class probably belong those cases of injury to the spinal cord high up in the cervical region, as well as those occurring with cerebral or cerebellar hemorrhage. As before stated, certain forms of priapism following alcoholic debauch come under this heading also.

2. *Priapism due to Causes which Act Directly upon the Tissues of the Penis.*—Under this heading we find the priapism due to very widely different underlying causes, and widely different pathological conditions are present.

In the first place may be mentioned the priapism in acute gonorrhea known also as chordee. Here the condition is due to an edematous infiltration of the corpus spongiosum which becomes less extensible than the corpora cavernosa. When during the night, due to the heat of bedclothes, and the reflex irritation of the acute inflammation present, erections occur, the corpora cavernosa will erect, while the corpus spongiosum cannot enlarge. Thus the penis is curved downward in erection and the painful priapism or chordee results.

There is also another form of priapism occurring in acute gonorrhea which is not chordee, as it is not accompanied by bending or curvature of the penis. In these cases the pathology is as follows: The pain is due to the fact

that the congested infiltrated mucous membrane and submucous connective tissue are not able to stretch as they normally do when the cavernous bodies become engorged with blood. When nocturnal erections occur, due to similar causes as those mentioned in connection with chordee, the non-elasticity of the urethra caused by this infiltration of the mucous and submucous tissue gives rise to the intensely painful erections which follow.

Priapism due to alcoholic and sexual debauch is due to the intense swelling and inflammation found to be present not only in the structures of the penis, but also in the perineal and cremasteric region. As a general rule, this form of priapism does not involve the corpora cavernosa and the corpus spongiosum at the same time. In some cases the glans penis and the entire corpus spongiosum have remained unaffected, and cases have been reported in which one corpus cavernosum was intensely turgescent while its mate was entirely unaffected.

Priapism due to cantharides poisoning is due for the most part to the intense inflammation of the urethral mucous membrane caused by the poison.

Under the present heading belong also those cases due to direct traumatism of the penis and perineum. Here the extravasation of blood with its subsequent clotting acts mechanically so as to interfere with the normal distensibility of the parts, thus causing the erections to be painful. For the same reason purulent infiltrations of the mucous and submucous tissues cause priapism.

In cancerous infiltration of the penile tissues the parts become stiff and rigid, and thus mechanically interfere with

the normal distensibility of erection, thereby producing priapism.

In leukemia, the priapism is due to the interference with the return circulation, due to the pressure of the enlarged glands, and also to thrombosis of the corpora cavernosa. The organ thus remains more or less permanently engorged.

Symptoms.—The symptoms vary with the etiological factors. In children there are present only slight and more or less persistent erections, which are generally painless and vanish with the removal of the cause. The condition can hardly be dignified by the term priapism, but as it fits in with the definition of the term, it has been considered in this connection.

In the adult, the cases of priapism which are dependent upon reflex irritation from vesical calculi, retention, stricture, etc., are likewise very mild and transient in character. The body of the organ is only moderately distended, and except for an uneasy and slightly painful feeling in the glans, little inconvenience is experienced.

In the priapism caused by cantharides poisoning, the inconvenience experienced is due in greater degree to the intense inflammation of the entire genitourinary tract from the kidneys down, than to the priapism. The symptoms of the latter, while in some cases rather severe, are so greatly overshadowed by the more dangerous and sometimes fatal condition of the other organs, as to be entirely negligible.

In the priapism which accompanies acute gonorrhea, whether in the form of chordee or not, the symptoms are very pronounced, and for the time being may eclipse every other symptom of the disease. The attacks come on at

night, and the intense pain awakens the patient from his sleep. The entire organ is congested and sensitive, while the pain is so severe at times that patients have tried to break the erection by direct force or pressure applied to the penis, such as a blow with the wrist or from some implement. The result is disastrous, as rupture of the urethra may result. If the attack subsides, and the patient goes to sleep again, he is generally promptly awakened by another attack. His sleep thus disturbed, he becomes restless and awakens in the morning completely exhausted. For the time being at least, this is a very serious complication. Cases are on record in which phlebitis and gangrene has followed the "breaking" of a chordee by the patient, and this has finally resulted in death.

The priapism which depends upon injury to the spinal cord, or upon cerebral or cerebellar conditions, is usually not painful. This particular symptom is borne by the patient with but little complaint. There is often no sexual desire, and the only inconvenience is that caused by the mechanical position of the organ. It is probable that, in comparison with the other symptoms of the very serious condition present, the former is more or less secondary in importance. This, however, is the most persistent of all the forms. Cases of continuous priapism for four or five months at a stretch have been reported, and Starr, in the *New York Medical Journal,* June 15, 1887, reported a case of meningomyelitis in which the patient suffered from mild priapism for seven years.

The most painful forms of the disease are met with in those cases where the condition follows alcoholic or sexual

excesses. Here the onset may be in one of three ways. Either after several mild and frequent attacks of erection, lasting but a few minutes at a time, a condition of priapism finally sets in; or, after coitus, the penis refuses to go down and remains in a condition of priapism; or again the patient wakes up at night without any premonition, and finds his penis in a state of painful erection which persists for a long time. Often the sufferer tries to relieve himself by coitus, but this generally fails and makes matters worse. Even, in those exceptional cases where orgasm and emission are possible, there is absolutely no pleasurable feeling whatever.

During the attack the symptoms are very severe, and one can do no better than to give Taylor's[126] classic description of the condition and symptoms:—

"In its most severe form the organ becomes much enlarged, tense, and comparable to cartilage in rigidity, and the seat of severe pain. The glans may be double in size, much distended, and glistening, as if it would burst. The corpora cavernosa are very dense and unyielding to pressure in their whole length, including their crura. The corpus spongiosum is likewise hard and swollen, and its bulbous expansion is in a similar condition. In some cases the perineal muscles can be felt as dense fibrous bands, and the dorsal vein of the penis seems much distended and feels like a whipcord. In many of these cases attentive examination reveals very painful spots or perhaps nodules in the corpora cavernosa, particularly toward their root or in the crura. Then, again, digital pressure on the bulb and over the perineal muscles may cause an agony of pain. Spasm of

the cremaster muscles may be present, and the testes then are drawn forcibly up to the internal ring. Redness and swelling of the prepuce may be observed as complications. As a rule the integument of the penis retains its normal color.

"In this pronounced condition the sufferings of the patient are very severe, and many authors apply the term atrocious to the pain which is seated in the virile organ. The patients fear the least touch of their linen or of the bedclothes, and jarring of the bed or heavy steps in the room cause them agonizing suffering. They draw up their legs upon the abdomen in order to protect the penis from the slightest touch. This organ may lie rigid against the abdomen, or it may be more or less erect and at a right angle with the body in the horizontal position. Very soon these patients become much worried and apprehensive, and their faces give evidence of anxiety and suffering. In these cases urination may be accomplished with little difficulty, or the act may be painful, slow, and halting, with a small, sputtering stream, or the patient may have to assume the knee-elbow position in order to expel the urine from the bladder."

When we consider that these attacks may last for days or even weeks at a time, during which little sleep is obtained, and that the duration of the priapism with periods of more or less intermission may last from three to six consecutive weeks and even longer, and that in one severe case it has lasted for a period of five months, we can appreciate that the condition is really a serious one. Even when, after a long attack, relief comes at length, everything

seems normal and the patient is happy, this relief in the vast majority of cases proves to be only an intermission, and the whole condition returns again in a short time. These remissions may come on at rather long intervals and are frequently brought on by fresh alcoholic or sexual excesses. In some cases, however, exposure to cold or wet, or severe bodily exertion will bring on a return of all the acute symptoms.

It is not every case, however, that attains this severity, and there are different grades of suffering down to even very mild symptoms.

In the priapism of leukemic origin, all grades of severity occur. Taylor[126] doubts the leukemic etiology in these cases, but most other authorities have no hesitancy in stating that the leukemia is the cause of the priapism.

Diagnosis.—The diagnosis is made from the local condition. We must not be satisfied, however, with merely making a diagnosis of priapism. It is imperative to find the underlying etiological cause in order to give the proper treatment. Thus to treat a case of priapism in a child or adult, dependent upon a vesical calculus or other reflex condition, by means of sedative or cold applications to the erect penis, would be the very height of folly. On the other hand, priapism must not be confused with satyriasis, which is an entirely different condition, although the two may coexist.

Course and Prognosis.—The prognosis must be guarded, as in some cases gangrene has resulted. Moreover, in a large number of cases, impotence has been noted as a sequela. The prognosis must be particularly guarded in

spinal and cerebral cases, being dependent upon the severity of the underlying injury. In leukemic cases, as well as in those of sexual perversion, the priapism is generally very persistent, and even if apparently cured is often followed by relapses. In gonorrheal cases the prognosis is excellent unless the patient does some violence to his urethra. In reflex cases the disease vanishes with the removal of the cause. In traumatic cases the priapism generally disappears after a while, but the trauma may have permanently injured the urethra. In tabes the priapism disappears as the disease progresses.

Treatment.—The treatment varies with the etiological cause. In those cases due to reflex irritation from vesical calculus, etc., common sense dictates the removal of the calculus or whatever condition is the origin of the reflex. Wherever there is a history of syphilis or even a suspicion of it, antisyphilitic treatment should be given. In gonorrheal cases I have had the best results from opium and belladonna suppositories, and the local application of ice to relieve the erection. Patients should be especially warned against any violent assault upon the penis to reduce the erection. In traumatic cases, ice to limit the hemorrhage, followed by incisions under absolute asepsis to remove any blood-clots and to allow free drainage of the exudate. The incisions should be made into the most turgid portions of the penis. Early incision is especially important in purulent infiltration.

For the priapism itself, especially for those severe cases following alcoholic or sexual excesses, morphine, chloral, or bromide of potassium may be used during the paroxysm.

Either very hot or very cold applications may be employed locally, but chloroform narcosis is generally of no avail.

CLITORISM (KLITORISMUS).

This is a very infrequent condition, and the term has not even found its way into English textbooks or other works on gynecology, nervous diseases, or sexual diseases. It cannot even be found in medical dictionaries.

It was first described by Rohleder, I believe, and is the exact counterpart of priapism. Indeed, it might be called "priapism in the female." Rohleder describes it as a condition of long-continued, painful, recurring erection of the clitoris. In some cases ejaculation takes place. It is the result of very intense masturbation or tribadism. Hysteria, nymphomania, and excessive coitus are also at times etiological factors. The treatment is that of sexual hyperesthesia, and the primary object is the cure of the Onanism.

CLITORIS CRISES.

Köster[70] reported a very rare condition of crisis in the clitoris, occurring in locomotor ataxia, and similar to the other well-known crises which occur in this disease. The few other reported cases come mostly from French and Italian writers, and up to the case reported by this writer it was, I believe, unknown in Germany.

The patient was 49 years of age, and had been suffering from tabes for a period of twenty-one years. Besides the condition presently to be described, she also suffered from laryngeal crises and presented also the classic symptoms of tabes dorsalis.

The crises came in attacks, which occurred every other day, starting about two days before the menstrual period, and lasting during the entire period and even a few days beyond. The nature of the attack was as follows: The patient experienced a peculiar involuntary access of sexual feeling, a sensation of pleasurable tickling, which began in the vagina, travelled down the clitoris and vulva, and culminated in a true orgasm with spasm of the clitoris and ejaculation. Immediately thereafter sharp, darting, lancinating pains were experienced in the vagina, uterus, and back, lasting for several hours.

Like the other crises of tabes they are entirely independent of will, and appear only at night or when half-asleep. All efforts on the part of the patient to suppress the erotic feeling are generally without avail. Sometimes, at the very commencement of the attack, however, the patient appeared to abort it by getting out of bed and walking about.

Care must be taken to differentiate these true crises from pseudo-crises. In the latter, owing to peripheral or radicular irritation, clitoris crises may occur, especially during light sleep.

CHAPTER IX.

SATYRIASIS.

Definition. Increased sexual desire not satyriasis. Etiology. Theory of von Krafft-Ebing. Pathology. Author's opinion. Symptoms. Chronic satyriasis. Diagnosis. Prognosis. Treatment. Importance of treatment.

Definition.—Satyriasis is defined[32] as excessive venereal impulse in the male. It is the exact counterpart of nymphomania, which is the same condition in the female.

The excessive impulse must be pathological in order to constitute satyriasis. The fact that a married man (egged on perhaps by his wife) has the desire and the ability to have intercourse with his wife very frequently, does not constitute the disease. The amount of sexual intercourse a man can have under suitable conditions varies *normally* within very wide limits, and simply excessive coitus does not constitute satyriasis. In those afflicted, there exists an abnormal, terrible desire or impulse to have sexual intercourse under any circumstances or conditions, irrespective of the age of the female or other considerations of decency or decorum. As White and Martin[134] put it, "the sexual desire is so overpowering that its gratification becomes the one dominant thought and purpose of the patient's life."

Etiology.—The etiology is not at all clear, and various causes given by some authors are vigorously denied by others. This is mainly due to the different conceptions of the disease itself held by different authorities. Alcoholism and pulmonary phthisis are considered by some as

etiological factors. Both continence and masturbation are supposed by some to lead to it, but, from a large experience with both of these latter conditions, I cannot at all subscribe to this view. I have never seen either a case of masturbation or of continence develop into satyriasis. I have also read the reports of those cases of supposed satyriasis following continence, but, from an impartial reading, can say that the author had not the correct conception of the disease. One example might be briefly given here. A young unmarried clergyman had for many years been troubled with sexual thoughts which he, however, successfully repressed. Finally his sexual feelings so overpowered him that he became almost delirious and was cured only by regular sexual intercourse. This case has been frequently cited as satyriasis due to continence. To the unprejudiced mind, however, it is clear that this was not at all a condition of satyriasis, but simply an unusually powerful sexual desire. The very fact that the patient was cured by normal sexual intercourse shows that there was not even a tendency to the disease. As regards masturbation being a cause, we must bear in mind that the mere fact that a victim of satyriasis often resorts to masturbation, if he is unable to satisfy his desire in any other way, by no means proves that masturbation is the cause of the disease.

An interesting theory of the etiology of satyriasis is the atavistic theory brought forward, I believe, for the first time by von Krafft-Ebing. In animals, especially during the rutting season, the sexual instinct is so powerful as to dominate all other habits and render them at this time insensible to dangers ordinarily carefully guarded against.

As a result of education and breeding of many centuries, the sexual instinct in the normal human individual has been placed more or less in the background, and is not "the predominant note in the chord of human sentiments, but forms rather episodes in the physical and psychic life of cultured man with periods of ebb and flood. It is rather the generating element of higher and nobler social and moral sentiments, leaving room for other spheres of activity, whose object is the furtherance of interests affecting the individual as well as society at large."[71]

As a result of centuries of education, civilized man has evolved a moral code for himself, which dictates that he satisfy his sexual needs within certain limits of modesty and morality and not, like the brute, whenever desire seizes him.

"Practically speaking,"[71] says Krafft-Ebing, "the sexual instinct never develops in the normal, sane individual who has not been deprived by intoxication (alcohol, etc.) of his reason or his senses, to such an extent that it dominates all his thoughts and feelings, to the exclusion of other aims in life, and tumultuously and in rut-like fashion demands gratification without allowing the possibility of moral and righteous counter-presentations, resolving itself into an impulsive, insatiable succession of sexual indulgences."

In satyriasis, according to this view, we have a reversion to primitive instincts. The patient becomes, for the time being at least, like the animal in the rutting season.

That there may be some truth in this atavistic theory is shown by the fact that among primitive peoples no restraint whatever is imposed on the sexual impulse; it is

gratified without shame and without formality. No hindrance is offered to the mutual intercourse of the two sexes.

"While originally," says Kisch,[69] "savage and uncivilized races, as well as primitive man, made nakedness the rule and cohabitation was practised entirely unrestrained by law or morals, and simply as an expression of unbridled passion, so that complete promiscuousness of sexual life resulted, civilization has set limits to the sexual relations and has introduced marriage as a sacred institution."

Lombroso comments upon the entire freedom in sexual relations among the North American Indians and mentions that[69] "periods of general promiscuity occur at certain times, just as in the case of rutting animals, probably in the warm season of the year, when food is plentiful. It is difficult to draw any distinction between the noisy orgies of babboons and those of the Australian negroes, who keep the sexes separate throughout the entire year, but come together like rutting animals at the time of the ripening of the yam."

Cook[69] mentions, in connection with his first voyage, that at Tahiti he saw a native in sexual intercourse with an eleven-year-old girl before the queen, who gave him directions in that regard. The sexual act, according to Cook's account, was the favorite topic of conversation between the sexes.

According to Herodotus[69] many of the nations of antiquity did not keep the sexual relations private, but cohabited like animals in any assemblage.

Lombroso and Ferero, in their work, "Woman as Crim-

inal and Prostitute," say:[69] "In the lower stages of development the sense of modesty is entirely absent; unlimited freedom of sexual relation is the general rule."

It might be objected, however, that lack of modesty in sexual matters does not constitute satyriasis. But, on the other hand, we can easily understand that if such a primitive man were to be brought into contact with modern society, it would be impossible for him to control his sexual appetite as does the civilized man of today, after centuries of education. It is more than likely that the former would have connection at every opportunity whenever the desire seized him and would be practically like one afflicted with satyriasis. In other words, were a man born today, with prehistoric or even primitive sexual instincts, and with that lack of self-control which is *normal* to primitive man, we would certainly consider him suffering from satyriasis.

Pathology.—Opinion is divided, among those who have studied this condition, as to whether it is a disease *per se* or only a symptom of some form of psychosis. Thus Parke[90] says that both satyriasis and nymphomania are more frequently symptomatic of the graver psychosis dependent on derangement of cerebral and spinal functions. On the other hand, Wulffen[136] considers it a pathological condition of sexual hyperesthesia. According to him, both satyriasis and nymphomania are not perversions, but simply pathological states. The pathological seat, in his opinion, is to be found in the genitals themselves and the disease is neither hereditary nor are those afflicted degenerates. Krafft-Ebing[71] considers it a state of physical hyperesthesia, with a powerful participation of the sexual spheres.

My own opinion is, that in the present state of our knowledge (which is by no means complete) it is best to consider satyriasis as a clinical entity just as we consider impotence, or masturbation; that is, a condition which may be due to either local, cerebral or psychic causes. This conception does not conflict with the opinion that the disease is merely a symptom of some graver psychosis (psychic form), nor with a case which has come under my own observation, and which is presently to be reported, where the disease was due to the irritation of an exceedingly large and inflamed verumontanum, which was seen through the posterior endoscope, and in which the reduction of the verumontanum by the application of powerful caustics eventually effected a cure. The view just expressed is merely tentative, as it appears to be the only one to harmonize all the clinical facts. It may, however, have to be modified or entirely altered as soon as more light is thrown upon the pathology than we know at present.

It should be distinctly remembered, in considering the symptoms and history of some of these cases, that satyriasis often accompanies severe forms of psychoses, and is to be found in connection with, and forms part of, some forms of insanity.

Symptoms.—The person afflicted with satyriasis strives to obtain coitus at any price. If he cannot obtain it in the ordinary way, he sometimes resorts to masturbation or sodomy. Rape is not uncommon. Wulffen[136] reports a case of an old man of 70, who married a young girl with whom he had coitus 10, 15 and 20 times in twenty-four hours, and actually kept this up for a period of three

months. Krafft-Ebing[71] reports the case of a middle-aged man who left the train, ran into a small village, and raped an old woman of 70, whom he found alone in her home. The case which came under my own observation, and above referred to, was that of a poor laborer who spent all his wages to obtain connection, and who told me that he would have had connection several times a day if he had had the price. Every time he saw a female he would be seized with an inordinate desire, which he found it most difficult to restrain.

The entire psyche of these patients is made up of sexuality which colors their entire world. Every thing they see or hear brings thoughts on sexual matters. The phantasy produces sexual pictures, and in very bad cases there is an actual confusion of ideas and hallucinatory delirium. In most cases of the disease, the genital organs are in a state of continual turgescence. Many of those afflicted eventually find their way into the criminal courts. "The sexual impulse," says Krafft-Ebing[71] "may become so strong as to completely dominate both imagination and will and to imperatively demand relief in the corresponding sexual act. In acute and severe cases, morals and will-power entirely lose their controlling influence, while in chronic and milder cases restraint is still possible to some degree. At the acme of paroxysm, hallucinations, delirium and benumbed consciousness appear, and often continue during a prolonged period." These latter symptoms, just mentioned, really belong more to the grave psychoses than to satyriasis proper. He also quotes the case of a man in whom the sexual impulse became so powerful that, if he were absent

from his wife even for a short time, he became indifferent as to whether woman, man, or animal satisfied his desire.

There is also a form of chronic satyriasis which is described by Krafft-Ebing[71] as follows: "To this class belong men who suffer from sexual neurasthenia as a result of *abusus veneris,* and particularly of masturbation, and who at the same time possess intense libido sexualis. Their imagination, just as in acute cases, is intensely excited, their mind is full of obscene pictures, so that even the most sublime things they contemplate are tainted with lustful images and suggestions. All the thoughts and desires of such men are concentrated on sexuality, and, as the flesh is weak, they gradually acquire the grossest perversions of the sexual act, under the stimulus of their imagination."

Diagnosis.—The diagnosis is to be made from a careful study of the history of each case. It is especially important to make the correct diagnosis and differential diagnosis in criminal cases, so as to fix the responsibility in cases of rape or other criminal assaults.

Prognosis.—In the absence of a distinct pathological condition the prognosis as to cure is bad. Many of the milder cases, however, seem to be able to control themselves to a certain degree, often even to a very marked degree, and they may go through life without getting themselves into trouble.

Treatment.—In each and every case, it is well to investigate the condition of the posterior urethra. In the case reported by me above, I found a definite pathological condition, the removal of which cured the disease. The pathological condition in that particular case was an extremely

enlarged and congested verumontanum, the largest I had ever seen, and the treatment consisted in direct application of very strong silver nitrate to the parts through the Wossidlo-Goldsmith posterior urethroscope. Why a diseased verumontanum should have caused satyriasis in that particular case, and why in hundreds of other cases which I have seen practically the same condition in the posterior urethra should have had no such effect, is one of the unsolved mysteries of sexual neuroses. Both Forel and v. Schrenck-Notzing report cases relieved, and in some cases cured, by the use of hypnotism. In these they considered masturbation to be the underlying cause.

Even though we cannot get at the etiological factors, or remove the underlying pathological condition (especially in the psychic and cerebral forms), we must not neglect treatment nevertheless. We must positively interdict alcoholics, as well as coffee and tea. We must also remove any local genital condition as well as anything that psychically stimulates the sexual centers. The reason for this treatment is as follows: There are very many mild cases of satyriasis, in which the patient under ordinary circumstances is quite able to control himself, but if drunk, or under additional outside sexual stimulation, is entirely unable to do so, and gets himself into serious trouble. The more severe cases ought to be placed in an institution, for the protection of society as well as for their own protection, and we ought not to wait until some unfortunate, uncontrollable impulse brings them into the criminal courts.

CHAPTER X.

NYMPHOMANIA.

Definition. General considerations. Etiology. Heredity. Pathology. Symptoms. Illustrative cases. Nymphomania and sterility. Diagnosis. Course and prognosis. Treatment.

Definition.—Nymphomania may be defined as excessive venereal impulse in the female. As has already been mentioned, it is the exact counterpart of satyriasis, and the two conditions are generally considered together.

It is commonly asserted that, while satyriasis is rather rare, nymphomania is not at all uncommon, and is certainly much more frequently met with than satyriasis. I cannot, however, subscribe to this comparision of the frequency of the two conditions. The error has been made, I believe, in not taking into account the *normal* sexual desire of woman. When a single man has sexual desire he generally indulges in intercourse, and no notice is taken of the fact. But, under our present social conditions, an unmarried woman is supposed to suppress all thoughts of sexual intercourse, and so we have come to regard one who, teased by a strong (though still normal) sexual impulse, betrays it by her actions as a nymphomaniac. This condition, however, is not true nymphomania. In making our comparisons of the frequency of nymphomania as compared to satyriasis, we must take into account that the sufferer from satyriasis may remain undetected for a long time (in mild cases possibly for life) while the nymphomaniac is more readily recognized.

Etiology.—Much that has been said concerning the etiology of satyriasis also applies to nymphomania. Neither culture nor breeding seem at times to have any etiological influence. It is found in the most cultured, in the most modest, and in the most religious, almost to the same degree as in those less carefully educated. As with satyriasis, while many of the nymphomaniacs are given to masturbation, from this fact alone we cannot conclude that masturbation was the cause of the nymphomania.

One factor, however, stands out prominently in the etiology of these cases, and that is the hereditary factor. In so many cases of nymphomania we find an immediate history of insanity or other severe psychosis in one or the other of the parents, or very near relatives, that we cannot help coming to the conclusion that nymphomania, far more than satyriasis, is, in the vast majority of cases, really a psychopathy. Another fact worthy of mention is that so many nymphomaniacs end up in insane asylums. In this connection, however, we must take into consideration that nymphomania may be but a symptom of some graver form of psychosis, and it may well be that, in some cases at least, it is among the first symptoms of insanity. As far as our present knowledge goes, no known factor (outside of heredity) will cause nymphomania. In other words, *the nymphomaniac is born, and not made.*

Pathology.—As may be gathered from a consideration of the etiology, the pathology is not at all understood. We do know, however, that the disease is not dependent upon any local condition of the genitals, and all we can say at present is that the disease probably has its seat in the brain.

Symptoms.—In nymphomania the sexual desire is purely physical in character, and centered upon the local pleasurable excitement of the genitals. There is none of the higher feeling of love which is so characteristic of the erotomaniac.

The best and most careful rearing of girls suffering from nymphomania, says Reti,[124] cannot save them from their downfall. In their wild passion, casting all moral and social considerations aside, they throw themselves into the arms of sin. The more they abandon themselves to the gratification of their lust, the greater is the desire of their morbidly irritated sexual centers for lecherous satisfaction. Every indulgence increases the desire and lessens the capacity.

Trélat[124] tells of a young girl, the daughter of a professor, who at the age of 15 would receive soldiers at night through her bedroom-window to satisfy her increased desire.

Talmey[124] cites the following case from Reti: The patient lived happily with her husband until after the birth of her first child. From that moment insatiable lust seized her. An irresistible craving suddenly took hold of her—an indomitable lust to embrace a man. In her genitals she felt a morbid itching, an inexplicable excitement, a burning desire for sexual gratification. In the beginning her husband tried to satisfy her until he discovered his impossibility to do this. She did not allow an hour of the day to pass without demanding gratification from her husband. He was terrified to see her pressing her genitals to the edge of the table, to the door or any other hard object, in

order to satisfy her sensual appetite. When she became worse from day to day her husband decided that she was ill and brought her to the hospital for examination. At the introduction of the speculum, at first a morbid contraction of the constrictor cunni muscle occurred. The touch of the carunculæ myrtiformes provoked intense pain. After surmounting the obstacle, however, the pain ceased and a blissful rapture ensued. "Now! Now!" exclaimed the patient when the entire speculum was within the vagina. A convulsive movement seized her entire body, a thrill went through her, and she made all the movements of a passionate coition.

The nymphomaniac tries, by all sorts of coquetry and exposure of her genitals if necessary, to attract men to her for purposes of coitus. In many cases, the mere sight of a man is enough to throw her into the most intense sexual excitement. Wulffen[136] gives the following instance from Merzbach: A Berlin lady, belonging to the highest society, grabbed, under cover of her napkin, at the dinner, the genital organs of her supper partner.

One of the prominent symptoms, especially in young girls, is the demand for gynecological examination, and especially for catheterization. Any excuse for examination is brought forward. The patients will voluntarily retain their urine in order to have to be catheterized. The mind of these patients is simply full of sexual ideas. The patient, if unmarried, will invent numberless diseases for the purpose of being manipulated by the gynecologist.

Krafft-Ebing[71] rightly says that the milder cases of nymphomania claim our sympathy not less than those un-

fortunate women who by irresistible impulses are forced to sacrifice feminine honor and dignity, for they are fully conscious of their painful situation; they are a toy in the grip of morbid imagination which revolves solely around sexual ideas and grasps even the most distant points in the sense of an aphrodisiac.

Many of these cases, in their despair, come begging for castration, in the hope of finding relief in this operation, and some have even attempted suicide.

According to Herodotus, the pyramid of Cheops was built by the numerous lovers of the daughter of this king, who raised this enormous monument in recognition of the innumerable times she had yielded herself to their desires.

Lombroso[69] cites several examples of this inordinate sexual desire as follows: One woman surrendered herself to her husband's laborers; another had for her lovers all the desperadoes of Texas; a third had intercourse with all the herdsmen of her village; a fourth, though her husband occupied a good social position, led the life of a prostitute; a fifth, a cultured and intelligent woman, entertained a common bricklayer, etc. He also gives the following examples: A hysterical girl visited a physician and said to him, "I am still a virgin; take me." She submitted him to the utmost extremity of provocation, and asserted afterward that she had been violated. A rich young lady met a workingman in the street, offered herself to him, was accepted, and when she returned home related the affair with laughter. White and Martin[134] mention the case of a mother of five children who, in despair about her inordinate sexual desire, attempted suicide, and then sought an

asylum. There her condition improved but she never trusted herself to leave it.

Prostitution is often the logical outcome of nymphomania.

Rohleder[107] has called attention to the fact that nymphomaniacs are not infrequently sterile. From a theoretical standpoint this might appear very odd, but Rohleder gives the following reasons for the sterility in these cases:—

1. On account of the frequent and promiscuous coitus, they very often become infected with gonorrhea, with its resulting sequelæ.

2. Even if not infected with gonorrhea, the frequently repeated acts of coitus result in inflammations of the vagina and uterus, which predisposes to sterility.

3. There results a weakness or partial paralysis of the vaginal walls and its musculature, with the result that the spermatozoa rapidly flow out of the vagina after coitus.

4. On account of the rapid orgasm and the violent, stormy coitus, the spermatozoa are quickly expelled during coitus.

Diagnosis.—The diagnosis is made from a careful consideration of the entire history. We must remember that simple increase of sexual desire does not constitute nymphomania, and that the dividing line between normal and pathological sexual desire is not easily defined. Whenever a single girl seeks or enjoys gynecological examination, or, without evident cause, desires catheterization, we must suspect nymphomania.

Course and Prognosis.—The course of the disease is generally from bad to worse, and the prognosis is generally

very bad. Many of these cases end up as prostitutes, and quite a few become insane.

Treatment.—The treatment is very unsatisfactory, as in the vast majority of cases nothing can be done for them. According to Forel, Moll, von Schrenck-Notzing, and Fuchs, hypnotism has cured mild cases, but has been found absolutely powerless in the severe forms of the disease. Forel especially warns against the method of treatment by marrying a nymphomaniac with a man who is the victim of satyriasis. This has been tried, with the result that the children inherited the sum total of the degenerate qualities of the parents. Rohleder[107] states that Fränkel has been trying Roentgen treatment of the ovaries, with the idea of not only causing sterility but also a diminution of the libido, but he does not know if any good has resulted therefrom. The best that can be done for these unfortunates is to put them into an asylum where they can be of no harm either to themselves or to society in general.

CHAPTER XI.

FRIGIDITY.

Definition. Total, partial, congential, acquired. Frequency of condition. Frigidity different from lack of orgasm. Etiology and pathology. Normal frigidity. Acquired frigidity. Intellectual frigidity. Congenital frigidity. Heredity. Pathology. Frigidity and sterility. Author's discussion on sexual passion. Symptoms. External characteristics of frigid women. Diagnosis. Prognosis. Treatment. Necessity of instructing husband.

Definition.—In direct contrast with the intense desire for coitus which we have just described as characteristic of the nymphomaniac, we have the woman afflicted with frigidity. Here there is an absence of any inclination to sexual intercourse. Frigidity, then, may be defined as a lack of sexual desire in the female. It is often described as *anesthesia sexualis.*

Frigidity may be total or partial, congenital or acquired. In total frigidity the patient has absolutely no desire, sometimes even a feeling of disgust for the sexual act. In partial frigidity there may still be some feeling left, but it is present to but a very slight degree, and only on infrequent occasions. While total frigidity is rare, partial frigidity is not at all uncommon. At least 10% of all married women suffer from partial frigidity, and some authorities have placed it as high as 40%.

Frigidity must not be confused with that condition in which, during sexual intercourse, the orgasm fails to occur. Although this latter condition may be associated with frigidity and may lead to that condition, yet it is not frigidity,

although very often described as such by some authors. By frigidity we mean a condition where there is a lack or total absence of sexual desire. There are very many women, however, who have normal or even very intense sexual desire, but, on account of some pathological condition, cannot have an orgasm during coitus. This condition may be compared to that form of impotence in the male in which the desire is normal, and erection may even occur, but the organ goes down either before or just after intromission, and neither ejaculation nor orgasm takes place.

Etiology.—Frigidity is normal before puberty and in old age. It may also be considered normal in modestly reared girls up to their marriage, and it is not abnormal to have it persist for some time after marriage. As a matter of fact the pleasurable sexual sense is very often not developed until some time after marriage, and after many acts of coitus. The adage, "The girl has to be kissed into a woman," is undoubtedly true in many cases. Frigidity is also normal for a short time after a normal sexual intercourse. It may be acquired or congenital, and these will be considered separately.

Acquired Form.—Frigidity may be caused by a lack of relationship between the male and female genitalia. Thus, a very large or roomy vagina, with an undersized penis in the male, or even a markedly relaxed condition of the vaginal musculature, or any other similar condition which does not allow of intimate contact of the penis with the vagina may be the cause. Marked lacerations after childbirth often result in the same condition. Impotence or rapid ejaculation in the male may also be the cause of

frigidity in the female. This latter condition is especially operative if present at the very commencement of married life, before the sexual sense has been developed in the female. Such women may go through their entire life without ever knowing what sexual pleasure is. In some cases it has happened that such a woman in her second marriage becomes perfectly normal. *Coitus interruptus,* especially if started right after marriage, may cause frigidity, for the same reason.

Masturbation, especially if it has been practised for a long while before marriage, may be the cause of frigidity. Castration, especially if performed before puberty, will almost necessarily lead to frigidity. Various psychic or temperamental conditions, such as lack of affection between the parties, fear of pregnancy, etc., are sometimes etiological causes. Faulty methods of education, in which the sexual elements have been unduly repressed, are stated by some authorities as causing frigidity. There can be no question that the method of education of girls, in which they are supposed to suppress all sexual feeling, and are supposed to remain in ignorance of everything sexual, has a marked tendency toward the development of frigidity. Should such a girl marry for purely *social* reasons, it would not be surprising if her exceedingly dormant sexual centers should continue to remain dormant after marriage, and never be aroused from their lethargy by a mate entirely unsuited to her.

Intellectual frigidity, according to Sturgis[119] is that condition where a woman's thoughts seldom or never turn to thoughts of love, but are given to intellectual studies, to

scientific pursuits, and who, in fact, represses, consciously or unconsciously as the case may be, all sexual thoughts or desires; indeed, they never enter her mind, and she regards that portion of her nature as beneath contempt, and considers the menstrual function in no other light than that of a nuisance. Sturgis rightly considers this condition, in the majority of cases, more apparent than real, and feels that if such a woman were to meet her right intellectual mate, her frigidity would vanish.

Congenital Form.—In many cases, no etiological factor can be found, the female simply being born with little or no sexual desire. From a study of the sexual passion in many women, I have found that there is a large hereditary element about it. Thus, I have very often seen an entire family, all the members of which, both male and female, were very passionate sexually, and others again where the opposite condition prevailed. What applies to families also applies in a larger sense to races. As is well known, there are certain races, especially the negro, and, in general, the Southern races, who have the sexual passion markedly developed, while the Northern races, as a rule, are much less passionate.

Pathology.—The pathology varies with the etiological cause. In lacerations after childbirth, which cause a relaxation of the vaginal walls, thus making the vagina too roomy for the penis, and preventing the intimate contact of penis with vagina during coitus, the pathology is obvious.

Contrary to what one might possibly expect, injuries and diseases of the clitoris rarely, if ever, lead to frigidity. Cases of rudimentary clitoris, cases where the clitoris has

been bound down by adhesions so that it could not possibly come in contact with the male organ during coitus, and even rare cases of complete paralysis of the clitoris, in which all sensation has been abolished, have been seen more or less frequently, and yet in none of these cases has there been the slightest effect produced upon the woman's desire. On the other hand, injuries to the vaginæ bulbi, as well as injuries to the constrictor cunni, have caused frigidity.

In chronic masturbation the pathology is as follows: As a result of the frequent irritation and stimulation of the external genitals, these parts have become very sensitive, in fact much more sensitive than the interior of the vagina. As a result also of the oft-repeated act, the sexual centers have at first been rendered irritable, and then more or less exhausted, so that stronger and stronger external stimuli are necessary to arouse them. When such a person marries, the ordinary friction or stimulation of coitus is not sufficient to arouse them, and they derive no pleasure from the act and become frigid.

In inverts, who sometimes marry for economic or other reasons, frigidity is the rule. Here the pathology consists in the psychic makeup of the individual. Having only sexual feeling for one of their own sex (for they are really males with female genitalia), frigidity must follow as a matter of course.

In frigidity due to impotence in the male, the pathology must be sought in the sexual centers. These very often lie dormant in the unmarried female, and have to be aroused into action after marriage. Should the male be unable to

arouse them, they continue in their dormant condition, and frigidity finally results.

In total frigidity, the sexual center is absolutely unable to be stimulated either by psychic or organic sexual stimulation. In partial frigidity, the sexual center is capable of stimulation, but with difficulty.

Frigidity is very often part of a symptom-complex, consisting of infantile uterus, scanty and delayed menstrual function, sterility and lack of sexual passion. In these cases there seems to be a lack of development of the entire sexual makeup, anatomical, physiological, and psychical. In this connection I investigated, several years ago, the relationship of sexual passion to sterility and for this purpose interrogated 289 sterile women. My method of procedure and the results obtained have been set forth in a previous work[57] of mine, from which I quote the following:—

The subject of sexual passion is one about which it is very difficult to obtain any accurate *scientific* information. In most of my cases I interviewed only the wife and obtained my information from her. It is a very difficult matter at any time to decide what constitutes normal sexual desire, and when it is to be considered increased or diminished. It is still more difficult when we have to take the patient's statement what he or she *thinks* is normal or increased or diminished sexual desire. Thus it is not at all uncommon for a man to tell you that his sexual ability is below par, because he has heard of a friend who can indulge in coitus several times a night, whereas he only indulges as many times a week. Again, the sexual passion

largely depends upon the sexual passion of the partner. Thus a man with average sexual desire would not have much intercourse or as much sexual intercourse if his wife were very frigid or suffered from dyspareunia; whereas, if he had a wife who was very passionate and constantly fondling him, he would naturally have increased desire and perform the act more frequently. Again, most of my female patients were married but once, and never had connection with anyone except their own husbands, and so had no standard to go by whether their own or their husbands' desire was increased or diminished. Some women also do not care to admit that they have increased sexual desire, although the majority, thinking that it is important for the treatment (and in their desire to have children they will answer any question, no matter how delicate), will freely tell you what they consider the truth. It must be remembered that people judge largely by comparison. So a man with a very marked sexual desire, having for wife a woman with normal sexual desire, is likely to consider that his passion is normal and that his wife's passion is below normal, and so forth.

Fully realizing all these difficulties, I have, nevertheless, attempted to gather some facts upon this very important subject, and have tried, as far as possible, to avoid many of the errors above mentioned, and to which such statistics are especially liable. While a few of the authors mentioned in the bibliography state in a general way what their impression is regarding the relationship of sexual desire to sterility, I believe this is the first attempt to collect actual data on the subject, as I have come across no regular sta-

tistics, even in the voluminous work of Kisch.[1] I wish to state, also, that these facts, although collected almost entirely from dispensary patients, were *not* collected in the dispensary, where one has obviously not the time to go into such details. All my work on this subject was done in my own private office, where I saw the patients not once, but dozens of times in some cases, and where the patients, after seeing that I took a real interest in them, were perfectly willing to answer frankly and truthfully all my questions. I desire to repeat that, if questioned with proper tact and dignity, no sterility patient will refuse to answer to what, under ordinary circumstances, would be considered embarrassing questions. I make this statement advisedly, because I know that all the answers to my questions were truthful, as far as the patients were able to speak on the subject.

The statistics given here are the result of a very careful investigation of the sexual history of 289 cases. As I could find no authority to go by, nor any standard as to what may be called normal, diminished or increased sexual desire, I made up the following rules and have been guided accordingly:—

In the first place, I determine how many times on the average, except during the menses, sexual intercourse took place a week. As most people apply for relief for sterility at least a year after marriage, and in most cases after the second or third year, the novelty of sexual intercourse has

[1] A few years after my work was published, Rohleder[107] in 1914 published the 4th volume of his work in which he quotes some statistics on this very subject collected by Duncan more than thirty years ago. Duncan found, in 191 sterile women, 20.4% with lack of sexual passion.

already worn away. Then I carefully inquired which of the parties (or if both) desired the connection. In most of the cases the wife will tell you that it is the husband who asks for it; but further inquiry often brings out the fact that the wife has the desire, but does not care to ask her husband to have connection with her. I then ascertained the fact whether the wife cares for intercourse at all or only submits to please her husband. In those cases where the wife does not care for intercourse, I am careful to determine whether the frigidity is due to pain during the act. In several cases where coitus was frequently indulged in, I discovered that this was not due to increased sexual desire, but to the fact that the couple thought they stood a better chance of having a child. If the man is questioned, I ascertain whether he thinks his wife is more or less passionate than women with whom he may have had intercourse before marriage. If it is the wife's second husband, I inquire if he is more or less passionate than the first one was. It must be stated that any *one* of these questions taken by itself may not mean very much, but if we take them all together we can fairly make up our minds as to the sexual passion of each party. Furthermore, in my statistics I have considered the sexual passion *diminished* if (outside of the menstrual period) sexual intercourse was indulged in less than once a week on the average, and *increased,* if performed more than four times a week. These facts were, of course, taken into account with all the other facts enumerated above in making up the statistics. My data then finally show that in 289 investigations the sexual passion was as follows:

	Husband.	Wife.
Normal	43.0%	35.2%
Increased	46.5%	20.7%
Diminished	10.4%	44.1%

We thus see that in almost half the cases the woman's sexual desire is diminished. While we all know that in even non-sterile families the woman is, as a general thing, not as passionate as the man, the above data are sufficient to show that in sterile women the sexual passion is certainly much less than normal.

Symptoms.—The frigid woman has little or no inclination for sexual intercourse, and receives no pleasure from the act. Very often these women submit as a sense of duty to their husbands, they may give birth to one or more children, and very often are ideal mothers, and, except for the frigidity, ideal wives. Some of the more intelligent may even simulate sexual passion to please and deceive their husbands. The congenital sufferers never seek the physician's advice, but the husband seeks the physician, complaining of his wife's coldness, and on interrogating the wife we find that she has derived no pleasure from the act.

Some women, on the other hand, seem proud of their frigidity, and boast about what they consider their superior will and control of their desire. Some unmarried women, unless for economic reasons they take up prostitution, easily remain virtuous; they may not marry and brag about their chastity and the fact that no man can conquer them. "Even among married women," says Napheys, "there are wives who pride themselves on repugnance or distaste for their

conjugal obligations. They speak of their coldness and the calmness of their senses as though they were not defects. Yet the sour, shallow, sexless shrew is, as Jordan justly says, an imposture as wife, and her marriage is a fraud."[124]

There is on record an extreme case of frigidity, in which the wife read novels while her husband was having sexual intercourse with her, so little was she interested in the act. Although the majority of such cases cannot be recognized by any external sign, appearance or mannerism, yet in some cases there is certainly a less feminine and a more masculine character about the person. Many of these women make excellent executive chiefs, and do not possess the instability which is so characteristic of women. They are very mannish in their manners, are exceedingly practical, have strong will-power, but are by no means inverts. As already stated, they often make excellent wives and resign themselves without complaint to the sexual embraces of their husbands, although the act has nothing but repugnance for them.

Diagnosis.—The diagnosis is generally made from the history, which we as a rule obtain from the husband. In the unmarried, the diagnosis can only be suspected, but is rarely sought for.

Prognosis.—The prognosis depends upon the possibility of the removal of the etiological cause. In total congenital frigidity, the prognosis is generally bad, but, apart from the frigidity, there are no evil consequences of the condition. The patient never knew what sexual excitement or desire was, and therefore never misses it.

Treatment.—The treatment varies with the etiological cause. Lacerations or other gynecological conditions should be remedied if possible. Masturbation should receive the appropriate treatment outlined in the article under that heading.

Of great importance, because so much good can be done, is the management of those cases of frigidity where the sexual centers have not been duly aroused on account of the husband. Although I have already gone into this subject somewhat heretofore (see page 53), it is of such vital importance that I may be pardoned for speaking about it again here.

The tendency of late has been to see to it that the young female should know more of sexual matters before her marriage than has been the rule heretofore. This is perfectly proper. It seems to be taken for granted, however, that no such instruction is necessary for the male. It is taken for granted that most men have indulged in sexual intercourse before their marriage, and therefore do not need instruction in this regard.

Even taking it for granted that most men have visited prostitutes before marriage, it cannot be too strongly emphasized that there is all the difference in the world between connection with a prostitute and with one's wife, and that such a man still needs enlightenment upon many points in sexual matters.

When a man goes to a prostitute he has but one object in view, and that is the gratification of his own sexual desire. The sexual desire or gratification of his partner has no concern for him. Moreover, if his sexual partner

should prove frigid, he simply selects some one else on the next occasion.

When a man enters matrimony, however, he should understand that the marriage certificate is not merely a legal license to indulge in sexual intercourse whenever he desires. He should understand that his mate has the potentiality of a keen sexual appetite, which it is his privilege to arouse and maintain. He should not cease being the courtier the moment the object of his love is bound to him.

For this reason, the marriage bed should be the scene of the most tender caresses, and all the artifices of love should be brought into play in order to awaken in the female the sexual desire. The act of coitus should be but the final stage of this love-making. The first intercourse should never consist of a licensed rape. The husband should be taught to restrain his passion until his spouse is fully awakened and ready to respond to his sexual advances.

As a matter of fact, most married men only think of themselves in this regard. If they have desire, they at once have intercourse, although the wife may be half-asleep. By the time he is through she is just beginning to become excited, and then he withdraws his penis, little caring for the condition of nervous, unsatisfied sexual desire in which he leaves his wife.

For this reason, before he proceeds to intercourse, he should, with the most tender caresses and all the artifices of love, awaken in her the passion and desire for intercourse, and then, and not till then, should he proceed to the act. If, as is often the case, his orgasm should come before that of his wife, he should not remove his penis, but should

allow it to remain in the vagina, at the same time, with kisses and caresses, fan his wife's excitement until she has had her orgasm. His wife will then appreciate that she is not merely his licensed prostitute, but his wife. Among the lower animals the male jumps on the female when desire seizes him, and in some cases nature has provided him with spines, which project from his penis during erection, and insert themselves into the vagina, so that the female cannot get away before his coitus is completed. Nature has not provided man with such an apparatus, but has given him intelligence instead, and it is for him to employ that intelligence, rather than brute force, in his sexual relations. Were married men properly instructed in this regard, there would be less complaint about the coldness of their wives, and less complaint from the wives that sexual intercourse brings nothing to them but pregnancy.

For the congenital frigidity, Rohleder[107] suggests the internal administration of yohimbin, which is supposed to act by determining an increase of blood to the genitals, just as in the male, and this erection-like action may start or increase the sexual desire. He also recommends coitus during the menstrual period, as in even extreme cases of frigidity there is some sexual excitement present at this time.

In the absolutely hopeless cases it would be proper, for the peace of the family, to instruct the wife to simulate sexual excitement, including orgasm. There is certainly no harm in this fraud, if it answers the purpose, and it is certainly far better than the breaking up of a family by divorce, or the leading of the man into extramarital coitus, with all its dangerous consequences.

CHAPTER XII.

VAGINISMUS.

Definition. Etiology. Pathology. Symptoms. Penis captivus. Illustrative cases. Diagnosis. Course and prognosis. Vaginismus and the law. Prophylactic treatment. General treatment. Dilatation. Operation.

Definition.—Vaginismus may be briefly described as a violent, painful spasm of the muscles surrounding the vaginal entrance. It was first described by Dr. Marion Sims, and I can do no better than to give his classic description of the disease, as quoted by Howard Kelly[64]:—

"By the term 'vaginismus' I mean an excessive hyperesthesia of the hymen and vulvar outlet, associated with such involuntary spasmodic contractions of the sphincter vaginæ as to prevent coition. This irritable spasmodic action is produced by the gentlest touch; often the touch of a camel's hair brush will produce such agony as to cause the patient to shriek, complaining at the same time that the pain is that of thrusting a knife into the senstive part. In a very large majority of cases the pain and spasm conjoined are so great as to preclude the possibility of sexual intercourse. In some instances it will be borne occasionally, notwithstanding the intolerable suffering, while in others it is wholly abandoned, even after the act has been repeatedly, as it were, perfectly performed."

Etiology.—Although in the vast majority of cases a definite pathological condition will be found, it is also important to remember that, as a general thing, there exists

at the same time an underlying neurotic condition as a predisposition to the condition. In no other manner than this can we explain the well-known fact that vaginismus is very rare among the poor, and that most of the cases are met with in the overcultured, highly nervous-tensioned women. In other words, although as a general thing the disease is brought on by a definite genital trauma or other definite pathological condition in the genitals, exactly the same local condition would not cause vaginismus unless there were a predisposing underlying nervous condition present.

Pathology.—While we are wont to regard vaginismus as a neurosis, still I believe careful investigation will very often show some local or general condition present to account for the reflex spasm. It is very important to remember this, so that we may not fall into the error of treating it as a disease *per se*. It is really only a symptom, and we should be unremitting in our search for the underlying cause.

One of the most frequent underlying causes is the awkward attempt at coitus by the male at the very commencement of married life. These awkward attempts, often combined with a peculiar formation of the vulva and vagina, sometimes cause the penis to enter the extreme upper portion of the vagina, and to press the urethra against the symphysis pubis; the severe pain which results causes the woman to shrink from and fear every act of coitus, and is also the cause of the reflex spasms of the muscles of the vaginal outlet. Very often, the first attempts at coitus cause unusually sevère lacerations and fissures which provoke the

spasms of the muscles at each succeeding attempt. Cases have been recorded where, during coitus, the penis has entered the urethra. In other cases coitus has been carried on *per rectum,* without the male being aware of the fact. Sometimes it has been discovered after many years of married life that the penis had never entered the vagina at all, but had simply rubbed up against the external genitals, without either party knowing the difference.

In many cases the pathological condition present is a very tough hymen, and it is the ineffectual attempts upon it which produce the involuntary muscular spasms. In other cases still, the carrunculæ myrtiformes are found to be exquisitely tender and inflamed, while in another class persistent search has brought out the fact that a urethral caruncle was responsible. Sometimes nothing but a hyperesthesia of the vaginal mucous membrane is found upon examination.

A penis which is too large is often assigned by the wife as the cause. But this condition is really one of very great rarity, and we ought not to give much credence to such explanation. Other pathological conditions sometimes found are: neuroma of the fossa navicularis; varicose veins or prolapse of the urethral mucous membrane; fissures of the fourchette, neck of the bladder, or anus; masturbation or any other cause likely to increase the irritibility of the external genitals.

Symptoms.—Vaginismus is most frequently met with in young women at the commencement of their married life. At the first attempts at coitus, the musculature of the vaginal entrance is thrown into a violent involuntary pain-

ful spasm, which effectually prevents the entrance of the penis. Generally the spasm involves only the muscles of the vaginal entrance, but in severe cases the entire musculature of the perineum, anus, and bladder seem to participate. In rare cases the constitutional effects are so severe that general convulsions have followed. With each renewed attempt the spasm seems to increase and, after a while, in some cases the mere approach of the male, or even the mention or memory of the act, is enough to throw the parts into a spasm.

As a result, such women dread the attempt at coitus, and shrink from the act, although, in some cases, they have borne this condition for a long time from a sense of duty. Often modesty restrains them from seeking medical aid, until finally a nervous breakdown ensues.

Although the penis is generally prevented from entering, it does enter in some cases, but with difficulty and with pain. As a general thing the spasm comes on with the first approach of the male organ, but in some cases it does not commence until the male organ has entered and then ensues the peculiar condition known as *penis captivus,* in which the penis is caught inside the vagina, is held there by the muscular spasm, and cannot be withdrawn. The greater the attempt of the male to extricate himself, the more severe the spasm becomes, while the interference with the return flow of the blood in the male organ causes it to enlarge still more, thus materially increasing the difficulty. In particularly severe cases it has been necessary to chloroform the female in order to release the penis from the vaginal spasm. A case of such undue severity is reported

by Davis[69] as follows: A gentleman entering his stable found his coachman with a maid-servant *in flagrante delictu.* All endeavors of the pair thus surprised to separate proved ineffectual, and their attempts to draw apart caused intense pain to both. Davis, who had been sent for, ordered an ice-douche, which failed, however, to liberate the imprisoned penis, nor was that effected until the woman had been placed under chloroform. The swollen and livid penis exhibited two strangulation furrows, a proof that two distinct areas of the levator ani muscle had been spasmodically contracted.

As already stated, a gynecological examination shows the parts to be extremely sensitive, so that it is sometimes impossible to insert the examining finger, and a general anesthetic is needed for examination. This will usually reveal one of the pathological conditions mentioned above.

Although vaginismus is generally encountered in the recently married, cases have occurred where it first developed later on, sometimes even after childbirth. In some cases the spasm came on during labor, and interfered with the birth of the child, and it has also been accidentally discovered upon gynecological examination in virgins, the slightest touch causing a muscular spasm.

A particularly severe case is recorded by Sims[64] as follows: A family physician anesthetized the wife for the first coitus, which then offered no difficulty; he continued to do this at bi-weekly intervals for a year, when she became pregnant and bore a child at term. The old pain returned, however, and it became necessary to resume the "ethereal relations."

For obvious reasons the sufferer from vaginismus rarely becomes a prostitute. There exists a class of women, however, called by the French "demi-viérges," and by the Germans "Halbjungfrauen," (half-virgins) who are known to permit anything sexual to be done with them, except the act of cohabitation, which they have probably learned to fear by reason of vaginismus.

Diagnosis.—Vaginismus must be differentiated from dyspareunia, although frequently a cause of the latter. In dyspareunia there is only pain in intercourse and no spasm of the muscles, while in the vaginismus the pain is due to the spasmodic contractions of the muscles. In dyspareunia coitus is perfectly possible, but only accompanied by severe pain on the part of the female, while in vaginismus coitus as a general thing is impossible.

Kraurosis vulvæ, in its early stages, may have to be differentiated from vaginismus. Careful inspection, however, even at the commencement of kraurosis vulvæ, will reveal the sensitive areas at the ostium vaginæ, as well as beginning shrinkage of the vulvar integument.

Course and Prognosis.—If not treated, the disease goes on from bad to worse, until the entire nervous system suffers, and the patients literally become nervous wrecks. Dyspareunia, frigidity, and sterility are the sequelæ. Masturbation may be the cause, but sometimes is the outcome, of the disease. The prognosis depends upon the ability of the surgeon to discover the underlying pathological condition. If this be found and properly treated, the prognosis is excellent.

The results of treatment, however, are almost invariably

gratifying, though there is a very small percentage of cases which resist all treatment. If pregnancy ensues, the conditions almost always disappear after childbirth, although in very rare instances such has not been the case.

Schmidtmann, in his "Handbuch der gerichtlichen Medizin, 1905,[107] has called attention to the fact that on January 20, 1893, the highest Austrian tribunal handed down a decision granting a divorce to the husband in a case where the wife was suffering from vaginismus and refused to undergo operative treatment for its cure.

Treatment, Prophylactic.—It sometimes happens that the condition is accidentally discovered in virgins upon gynecological examination. When this is the case, marriage should be absolutely forbidden until the underlying pathological condition has been discovered and removed. Such circumstances, however, should be very rare. No virgin ought to be examined unless a distinct indication presents itself. The frequent handling of the virginal sexual organs cannot be too strongly deprecated. In the vast majority of cases the treatment of vaginismus can be safely delayed until after marriage.

As a matter of prophylaxis, it is also necessary to instruct young men before marriage to avoid any brutal attempts at coitus on the wedding night. Some men actually have the idea that severe pain and hemorrhage are essential at the first intercourse, and believe in fact that it is the only reliable sign of virginity. According to them most any amount of force is justifiable, whereas it is just at the first intercourse that most cases of vaginismus start. Such brutal and awkward attempts cause severe lacerations and

fissures, while each further attempt at coitus only aggravates the matter.

Treatment of the Disease.—In the first place all attempts at coitus should be positively interdicted until the condition has been cured. In the second place a careful gynecological search, under anesthesia, if necessary, should be made for any pathological condition of the genitals, and these conditions should receive appropriate treatment. As above stated, the fact cannot be too much emphasized, that in vaginismus there is almost always present some pathological condition which may sometimes be very obscure and apparently insignificant, but which it is our bounden duty to search out and treat. Any other method of dealing with vaginismus, purely as a disease *per se,* will be doomed to absolute failure.

After removal of the cause, we have next to treat the condition of spasm, which often remains as a pure neurosis, sometimes due to fear, even after the underlying cause has been eliminated.

In mild cases, before attempting coitus, a pledget of cotton soaked with 5% of cocaine sol. should be inserted into the vagina for a few minutes, and the vulvar region should also be painted with a similar solution. This is a very excellent method, although Rohleder[107] especially warns against it for the following reason: He claims that it may happen that the anesthetic effect of the cocaine may allow the penis to enter, but that the effect may wear off during coitus, the spasm may return, and the condition of *penis captivus* may result. Personally, I have never seen such consequences from the action of cocaine in this condition,

nor have any of the numerous authorities whom I have consulted ever reported such a result. From purely theoretical reasoning I should say, *that once the underlying cause has been removed,* a spasm which can be relieved by cocaine so that the penis may enter the vagina is not severe enough to cause the imprisonment of the penis even if it does return. The condition may be different, however, if

Vaginal dilators.

coitus can be accomplished simply through the action of the cocaine before the underlying pathological condition is removed.

In other cases, the local hyperesthesia can be relieved by painting the affected parts twice a week with a solution of silver nitrate, 20 grains to the ounce.

In marked cases, however, we must resort to gradual dilatations of the vagina with vaginal dilators. These should

be inserted in increasing sizes, and left in for an hour at a time. Later the patient herself may insert them several times a day.

Severe and obstinate cases require either forcible dilatations or incisions. In either of these operations a general anesthetic is necessary, and it goes without saying that, in any procedure undertaken, the hymen should be first thoroughly removed.

In dilatation the vaginal entrance is forcibly stretched by the operator's thumbs until the underlying muscle is felt to yield. A glass vaginal dilator is then inserted, and the dilatations are kept up with the aid of these dilators as above described. At the operation it is well to stretch the parts so thoroughly that the largest dilator can be inserted. It frequently takes several months of constant dilatation to eliminate the spasm and permit the penis to enter. In any case, however, when pregnancy has once ensued, the condition generally vanishes after labor.

The incision method, known also as Hirst's operation, consists simply of making one incision in the perineum from the vaginal entrance, half-way to the anus, and then two other incisions one and a half inches long in each vaginal sulcus, which should converge toward the medium line and unite with the perineal incision. These incisions should be deep enough to divide the fascia and underlying muscular fibers, and should be closed with catgut sutures and unite the vaginal to the perineal structures.

The operation has the effect of lessening the contractile action of the bulbocavernosi and levator ani muscles and results in a gaping of the vulvovaginal orifice.

CHAPTER XIII.

DYSPAREUNIA.

Definition. German conception of term. Etiology and pathology. Symptoms. Diagnosis. Prognosis. Treatment. Conditions akin to dyspareunia. Dyspareunia in the male. Definition. Etiology. Pathology. Symptoms. Diagnosis. Prognosis. Treatment.

Definition.—Dyspareunia may be defined as that condition in the female where coitus is accompanied by more or less severe local pain.

Attention should be called to the fact, however, that the German writers, as well as some American writers, use the word "dyspareunia" in an entirely different sense. The German writers define dyspareunia as a lack of sexual gratification on the part of the woman during coitus. In other words, she has normal or increased sexual desire, but never experiences pleasure during coitus. This latter condition must be carefully differentiated from frigidity, in which there is an absence of sexual desire. The subject will be discussed in another chapter. It is important to remember this distinction between the German and American conception of the word "dyspareunia," or else those reading German literature on the subject will soon find themselves in considerable confusion. Howard Kelly, in his first edition of "Medical Gynecology," as well as the translator of Kisch's work "The Sexual Life of Woman," also use the word in the German signification.

Etiology and Pathology.—This condition is in reality but a symptom found in very many different conditions. It

may be considered normal at the first coitus in the female, incident to the rupture of the hymen; nor should it be considered pathological during the first few weeks after that event.

Among the causes which induce dyspareunia may be mentioned the following: *vaginismus; incomplete, awkward, or rough attempts at coitus on the part of the male; hysteria; local hyperesthesia; disproportion between the male and female genital organs; trauma; genital as well as pelvic deformity; maldevelopment, cicatricial contraction, or displacement of any of the genital organs; inflammatory conditions in the urethra, vulva, vagina, bladder or rectum; inflammation or infiltration of the pelvic connective tissue, or the peritoneum covering the pelvic organs; urethral caruncle; vesical calculus; anal fissure; pelvic tumors; hyperinvolution; premature senility, etc.*

Symptoms.—As above stated, the condition itself is nothing more than a symptom. All we have is simply local or referred pain during coitus. But coitus is perfectly possible and no muscular spasm is present unless the condition is due to vaginismus.

Diagnosis.—The diagnosis is made from the history of the complaint of pain. It must not be confused with vaginismus, in which coitus is generally impossible, and in which the pain is due to muscular spasm.

Prognosis.—This depends upon the ability of the surgeon to find the underlying cause and to relieve it. Generally, the prognosis is good.

Treatment.—As in vaginismus, we must not treat the condition as a disease *per se,* but simply as a symptom of

some pathological condition. We must make every effort to find the underlying cause and relieve it.

Where the condition is due to rough or awkward coitus, full instruction should be given *both* parties as to the best way of conducting themselves during the act. The husband should be cautioned not to repeat the act too soon after the initial coitus, so as to give the ruptured hymen and other lacerations a chance to heal up. He should also be instructed to be gentle and to have his organ well lubricated in case difficulty is experienced in introduction. The wife also should be instructed how to do her utmost to assist her husband in introducing the organ. As stated heretofore, it is not uncommon for the husband, in his wild attempt at coitus, to insert the penis everywhere but in the proper place, and there are cases on record where coitus has taken place in the rectum or even urethra, and the hymen itself remained intact for years. If necessary, the wife should be given a speculum or vaginal dilator and shown how and where to introduce it herself.

In cases of marked spinal deformity in the female, in which the ordinary posture of coitus is not feasible or painful, it is perfectly justifiable to advise coitus in convenient positions.

Where the condition is due to smallness of the vagina, it should be treated by packing the vagina with glycerin tampons or dilating with vaginal dilators, and, in bad cases, by incisions similar to those made in the treatment of vaginismus.

It may be convenient to briefly describe here a condition in the female somewhat similar to dyspareunia, but of which

very little is found in medical literature. In this condition the act of coitus is not accompanied by pain but by other disagreeable sensations.

Among these disagreeable sensations which accompany or follow shortly after coitus may be mentioned headache, nausea, vomiting, diarrhea, abdominal pains, vertigo, flushes, paraesthesia, etc.

Some of these symptoms can be explained by the Freudian theory. This was the case in a young woman who, when a girl, was raped. This rape was accompanied by severe abdominal pains, and later on, when she married, each coitus was accompanied by severe abdominal pains. The most important point in treating these cases is to find the local pathological condition which is the cause of these disagreeable reflex sensations. Where none can be found after careful examination, it is advisable to send them to a competent neurologist for psychoanalysis.

DYSPAREUNIA IN THE MALE.

Definition.—Under this heading a condition will be described which, I believe, has never been described as a clinical entity, although occasionally mentioned as a symptom.

By dyspareunia in the male, I mean the exact counterpart of female dyspareunia, namely, pain during coitus. Under this heading I do *not* consider pain at coitus in the presence of acute inflammation of the urethra, for it is obvious that if a man is foolish enough to indulge in coitus during an acute posterior urethritis, prostatic abscess, or similar acute conditions, the act would be accompanied by

more or less severe pain. Such conditions are really irritations of inflamed surfaces, and under no conditions can they be considered as neuroses, nor will they be considered under this heading.

Etiology.—So far as my personal observation goes, I have only seen dyspareunia in the male as a sequela of either masturbation or withdrawal, and these two conditions must therefore be considered the most important if not the only etiological factors.

Pathology.—The pathological seat is to be sought for in the seminal vesicles and ejaculatory ducts. Inasmuch as none of these cases come to autopsy, we can judge the pathology only by analogy and by the result of rectal palpation of these parts.

Inasmuch as the pleasurable feeling of orgasm is the result of the squeezing of the seminal fluid through the ejaculatory ducts, we can readily understand how any inflammation of these ducts would be accompanied by a sensation of pain, especially where the inflammation is such as would cause a temporary narrowing of part of the lumen of the duct, and so cause a temporary resistance to the onward passage of the seminal fluid.

Symptoms.—The chief and only symptom complained of by the patient is a severe, acute, knife-like pain coming on just at the orgasm. It is generally felt in the perineum, although it may be referred to the anterior urethra, more especially at the meatus. The chief characteristic of the pain is its simultaneousness with the orgasm and its sharp-cutting, knife-like character.

Upon examination, we always find the seminal vesicles

enlarged and exquisitely tender. The same local conditions may also be found present in the urethra as are found in masturbation or withdrawal, although the symptom-complex may be present in the absence of every condition except the enlarged and tender seminal vesicles.

Diagnosis.—The diagnosis is to be made solely from the characteristics of the pain just described.

Prognosis.—The prognosis is excellent, as every case treated by me so far has absolutely recovered. The cases are, however, rather infrequent.

Treatment.—The treatment is really the treatment of the underlying condition and consists, briefly, in abstinence from sexual intercourse, *gentle* massage of the prostate and seminal vesicles, the treatment of the accompanying congestion of the deep urethra by *weak* silver-nitrate instillations, the avoidance of alcoholics as well as tea and coffee, and, in particularly bad cases, the temporary administration of bromides. For a *detailed* description of the underlying conditions, see Masturbation and Withdrawal.

CHAPTER XIV.

ABSENCE OF ORGASM IN THE FEMALE DURING COITUS.

Definition. Orgasm not synonymous with voluptuous feeling. German definition. Etiology. Pathology. Physiology of normal coitus in the female. Symptoms. Relationship to sterility. Author's opinion. Diagnosis. Prognosis. Treatment.

Definition.—Under this heading will be described that condition in which the female has normal sexual desire, but fails to experience any orgasm or other feeling of satisfaction during coitus. It must be sharply differentiated from frigidity; for in frigidity there is an absolute disinclination toward sexual intercourse, while in the condition under discussion there is normal or even increased sexual desire, but the patient experiences absolutely no orgasm. The two conditions may, however, coexist.

Stress is laid upon the point that there is no orgasm here *during coitus*. Many of these women can provoke an orgasm by masturbation and many have resorted to titillation of the clitoris during or after coitus to bring it on, but with them the normal act of coitus is insufficient to bring on the orgasm.

It should be noted also that orgasm and voluptuous feeling are not exactly synonymous. The pleasurable feeling often begins at the very commencement of coitus, continuing and increasing in force until the orgasm is reached. The orgasm is the very acme of the voluptuous feeling and corresponds with the violent ejaculation of the fluid from the

various glands. Until the orgasm is reached the woman is in a continuous state of excitement, and immediately after the orgasm there is experienced the feeling of satisfaction. Many of the women suffering from the condition of lack of orgasm during coitus experience more or less intense sexual pleasure at coitus, but do not get the relief which orgasm brings in normal coitus.

This condition has been wrongly described as dyspareunia by German writers as well as by some American writers; but dyspareunia is painful coitus, which is an entirely different condition. It has also been described under the heading of "Impotence in the Female," but while we may consider it as constituting *one* form of impotence in the female, it cannot be so described, because there are many other forms of impotence in the female as well.

Etiology.—Any condition which interferes with the full completion of the act of coitus may cause the absence of the orgasm. Prominent among these causes may be mentioned *coitus interruptus*. Here the act of coition is purposely interrupted before the climax is reached in the male, and naturally long before its culmination in the female, with the result that in many cases coitus stops before the orgasm can come on in the female. Another condition that acts in a similar way is impotence and rapid or premature ejaculation in the male. Still another cause may be due to awkward coitus on the part of the male, especially where much pain is experienced by the female during the act. In the majority of cases of rape no orgasm is experienced. In other psychic conditions such as fear of impregnation or dislike for the partner, the inhibition from the higher cen-

ters may interfere with the development of the orgasm. Masturbation is also at times an etiological factor, and its mode of action will be presently described.

Pathology.—To clearly understand the pathology of the condition under discussion, it is necessary to understand the physiology of normal coitus in the female, and the factors which produce the orgasm.

Briefly the physiology of normal coitus in the female is as follows: As soon as the penis enters the vagina, its contact with the sensitive mucous membrane and its continuous friction against this membrane starts a series of stimuli which are propagated to the optic thalamus and from thence to the cerebral cortex. This gives rise to the pleasurable feeling of coitus. At the same time the cerebral cortex sends down centrifugal impulses to the erection and ejaculation centers in the cord. From here other impulses flow out to the periphery, with the result that the clitoris becomes erect and bends downward to meet the penis, the entire genital apparatus becomes filled with blood, the muscles go through certain rhythmic movements, and the glandular apparatus is also stimulated into action. At the acme of the sexual act, they spurt out their secretions, and it is this ejaculation of the secretions of the sexual glands (mainly the Bartholinian) at the acme of the coital act that gives the extreme height of voluptuous feeling which constitutes the orgasm. But the pleasurable feeling, as already stated, begins at the very commencement of coitus, the orgasm being but its climax. With the completion of the orgasm, and partly as a result of the ejaculation and the relaxation of the coital muscles, the compression of the

pelvic veins is released, the hyperemia and congestion of the pelvic organs disappear, and the parts soon regain their normal condition of circulation. In the description given above, I have outlined only the essentials of the physiology of coitus without any pretense to completeness, that is, just enough as is necessary for an understanding of the pathology of lack of orgasm.

If, for any of the etiological causes mentioned, coitus is interrupted, the woman is left in a state of excitement, there is no feeling of satisfaction, and the condition of her nervous system may be likened to that of dangling a mouse before a cat, which the latter is not permitted to reach, or to holding a cup of water before a thirsty man without permitting him to partake, or placing a starving man in the neighborhood of a fine dinner, which he may see and smell, but is not permitted to touch. In a way this condition is even worse than masturbation, for in the latter the process at least comes to orgasm, ejaculation, and satisfaction, whereas here these important elements are merely hinted at but not experienced. Moreover, the hyperemia of the pelvic organs, which is normally relieved with the orgasm and its accompanying ejaculation, does not disappear if the orgasm fails to occur; and, if the condition has lasted for a long time, chronic congestion, with all its accompanying sequelæ, results.

In masturbation the sensitiveness of the external genitals has been so increased at the expense of that of the vaginal mucous membrane, and the sexual centers have been so dulled and almost exhausted by the frequent demands made on them by the oft-repeated acts of masturbation,

that the ordinary stimulation of the act of coitus is not enough to arouse them sufficiently to bring on the orgasm, and the latter must be brought on by titillation of the clitoris, or other masturbatory act of the hypersensitive external genitals. Another pathological condition met with is due to a disproportion between the male and female genitals. An undeveloped penis may not come into that intimate contact with the vagina which is necessary to sufficiently excite the sexual centers. Similarly a relaxed condition of the vagina, or a too roomy vagina, as the result of lacerations after childbirth, will have the same result. Pathological conditions of the clitoris, which prevent its coming into contact with the male organ during coitus, are a very frequent cause of lack of orgasm. Among such conditions also may be mentioned absent or rudimentary clitoris, a clitoris bound down by adhesions, or an abnormally placed clitoris. These pathological states of the clitoris explain why in some cases the woman experiences orgasm only when coitus is performed in unusual positions, such as lateral or even reverse positions of the parties. Perineal fissures and rectovaginal and vesicovaginal fistulæ may likewise prevent the occurrence of the orgasm. Any of the pathological conditions which cause dyspareunia may at times be etiological factors in hindering the completion of coitus and, by so doing, prevent the orgasm. Certain classes of degenerates, mainly inverts, often have marked orgasm when cohabiting with other females, and also with lower animals, but never with men. Many of the etiological factors in frigidity and vaginismus also become causes of the lack of orgasm.

Symptoms.—Many of the symptoms have already been hinted at in discussing the pathology. The nervous strain of such a woman, with her unappeased though stimulated sexual appetite, finally leads to a condition of nervous irritability, sexual neurasthenia, and hysteria. The condition, as already stated, is in many ways worse than masturbation, and, except for its curability in some cases, is worse than frigidity. The totally frigid woman knows nothing of sexual passion, and therefore misses nothing and there is therefore no strain upon her nervous system, while in the condition under discussion the state of affairs is just the reverse.

As a result of the chronic congestion, which finally results, in the pelvic viscera, we have a train of symptoms, well known to every gynecologist, which appear whenever there is chronic congestion of these parts from whatever cause. It is not necessary to enumerate all the symptoms arising from this chronic congestion, but a few of the more common ones will be mentioned. Among these are backache, increased frequency of urination due to vesical congestion, leucorrhea, chronic endometritis, hemorrhoids, etc.

Most German authorities lay great stress upon the causative relationship of lack of orgasm to sterility. I have discussed this question elsewhere,[58] but a few remarks upon this very important subject may not be amiss here.

Kisch[69] says the following:—

"In our consideration of the various influences by which the contact of ovum and spermatozoön may be prevented, the degree of sexual excitement experienced by the woman during the sexual act must not be overlooked, for this plays

a part not to be underestimated, even though it is a matter on which it is difficult to obtain accurate information.

"It is extremely probable that an active participation on the part of the woman in coitus has an important influence upon the attainment of fertilization, *i. e.*, that sexual excitement in the woman is a link in the chain of conditions leading to conception. This excitement has a reflex influence, but the influence may be exercised in either (or both) of two ways: first, it may cause certain reflex changes in the cervical secretion, whereby the passage of the spermatozoa is facilitated; or, secondly, it may give rise to reflex changes in the vaginal portion of the cervix, to a rounding of the os uteri externum, and a hardening of the consistency of the cervix (changes of an erectile nature), coupled with a slight descent of the uterus,—changes which likewise favor the entrance of the semen into the uterine cavity. Theopold goes so far as to say that it is only women who experience erotic excitement who are capable of being impregnated.

"My own opinion is that considerable importance is to be attached to voluptuous excitement of the woman during coitus, for the former of the two reasons mentioned above, namely, because such excitement leads to the occurrence of reflex secretion of the cervical glands, the secretion thus produced maintaining or enhancing the activity of the spermatozoa; and contrariwise, in the absence of voluptuous excitement on the woman's part there is a failure of the reflex secretion, and the passage of the spermatozoa into the uterine cavity is consequently less easily effected."

Rohleder[107] explains the influence of lack of orgasm as

a causative factor in sterility, by saying that at the height of the orgasm, and with the pouring out of the secretions of the Bartholinian glands, there also occurs an extrusion of the plug of mucus from the cervical os (the Kristeller). At the same time the cervix descends to meet the penis, and the peristaltic wave of the vaginal musculature commences at the entrance of the vagina and extends upward, thus preventing the semen from flowing out of the vagina. This results in forming an aspiratory or suction action, by which the spermatozoa are sucked into the now open os. The os uteri also opens widely and assists in sucking in the spermatozoa. If orgasm does not occur, this aspiratory action is either absent or incomplete, and the plug of mucus is not expelled from the cervix, all of which has a tendency to hinder the ascent of the spermatozoa. Most German authorities concur in this explanation by Rohleder.

I have shown elsewhere[57] that there is a very pronounced relationship between lack of sexual passion (frigidity) and sterility. Experiments and observations upon animals, mostly by breeders, seem to support Rohleder's views as given above. Nevertheless, while I do not desire to go on record as opposing this explanation of the causal effect of lack of orgasm to sterility, I believe the causal relationship has been greatly exaggerated. The fact, for instance, that pregnancy may follow rape, and that pregnancy has followed the mere deposit of spermatozoa upon the external genitals, with an intact hymen, shows that orgasm is not absolutely essential to impregnation. But these are not the chief reason for my dissent. My observations with cases of withdrawal have convinced me that

the act of withdrawal is not by any means a good preventive measure for conception. The spermatozoa have a very lively motion of their own, and once they have reached the cervical os, in the presence of normal female genitalia, they will somehow find their way into the uterus and Fallopian tubes. While there is no doubt that the aspiratory suction greatly favors their ascent, I do not believe it to be as essential as the German authorities would have us believe. Inasmuch, also, as spermatozoa may remain alive in the uterus for several days, it can be readily understood that they have plenty of time to climb up into the Fallopian tube even without any suction action whatever.

I have pointed out heretofore[57] that a very frequent combination met with is the infantile or undeveloped uterus, scant or delayed menstruation, together with lack of sexual passion and sterility. These observations lead to the conclusion that the sterility is not the result of the lack of sexual passion or the lack of orgasm, but rather that both conditions are but expressions of a general lack of development of the entire sexual apparatus, anatomical as well as physiological.

There is another class of unfortunate women who have intense sexual desire, but in whom it may take hours of continuous friction to bring on the orgasm, which may even never come on at all. In these women there exists a condition bordering on nymphomania, from which, however, it must be carefully distinguished. Those afflicted in this way constantly demand sexual intercourse with their husbands, and will exhaust the most powerful man. Being excited, they will demand their husbands to keep up

coitus indefinitely in the hope of obtaining satisfaction of orgasm. They are able to perform coitus innumerable times a night, and yet remain unsatisfied. The pathological seat in this class of cases is probably to be sought in one of the sexual centers, which seems incapable of responding to a stimulus.

Diagnosis.—The diagnosis is made from the history of the case. The essential point in the history is the lack of ejaculation. Whenever a woman states that she remains dry after coitus, it generally means a lack of orgasm. The converse however, is not true, for a woman without orgasm or ejaculation may nevertheless find herself wet, on account of the ejaculation from her husband, or the flowing out of his semen after coitus. We must take the entire history into consideration, and it must be remembered that some women deny the existence of orgasm when it really does occur on account of a false notion of modesty. Some seem to be ashamed to admit it, while others deny it to gain sympathy by representing themselves to be martyrs to matrimony. Wherever possible, therefore, it is desirable to obtain the husband's version of her condition at coitus, and compare the two histories. The fact should also be borne in mind that while the voluptuous feeling of gratification may be entirely unknown to the victim from her own personal experience, she may still know of it from conversation with female friends.

As above stated, the condition in which there is intense desire, but with inability to arouse the orgasm, must be carefully diagnosed from nymphomania. In the latter we will obtain a history of distinct orgasm on close question-

ing. The only similarity between the two is the intense desire for sexual intercourse, which in the disease under discussion, is due to the unsatisfied condition in which the woman is left after coitus. There ought be no difficulty in distinguishing lack of orgasm from vaginismus. In vaginismus there is no orgasm because there can be no proper coitus, while in the former condition coitus is perfectly possible.

Prognosis.—This depends upon the possibility of removing the underlying cause. The majority of etiological causes are remediable. Those cases where the pathological seat is in the sexual centers and their inability to respond to stimulation are perhaps the worst of all.

Treatment.—The treatment varies with the etiological causes. It may have to begin with the treatment of the male, if the condition is due to impotence or premature ejaculation on his part. He should also be warned against the evil consequences of withdrawal not only to himself but also to his partner. He may have to be instructed in the proper method of performing coitus, not only for his own satisfaction, but also for that of his wife. These instructions have been outlined heretofore on pages 178 and 179, and will therefore not be repeated here.

Any pathological condition of the female which may have an etiological bearing should be remedied. These include such conditions as perineal fissures, lacerations, adherent clitoris, as well as masturbation, dyspareunia, vaginismus, etc. (see Etiology and Pathology). For abnormal situations of the clitoris, or abnormal shortness of that organ, it is perfectly proper for the parties to be

instructed to experiment with out-of-ordinary postures during coitus, for the purpose of bringing the clitoris into better contact with the penis and so exciting the orgasm. Where nothing else can be done, Rohleder[107] considers it perfectly proper for the husband to resort to titillation of the clitoris during coitus for this purpose. No matter what attitude we may take toward this procedure, we must appreciate that we are very often confronted with alternatives far more serious, such as unhappiness in the marriage relationship, possibility of divorce, and even the temptation of the wife to try her luck elsewhere. These are no idle theories, but actual occurrences. We must remember that married women talk a great deal about such matters among themselves, and the woman will soon be made to understand from her female friends what she misses. If therefore we have exhausted all our therapeutic measures without avail, and find no other gynecological condition to remedy, it is far better to give the husband the advice mentioned than have the parties run the chances just referred to.

CHAPTER XV.

ENURESIS.

Definition. Classification. Etiology and pathology. Enuresis and epilepsy. Symptoms. Psychic element. Diagnosis. Prognosis. Treatment. "Wonderful cures." General treatment. Folly of punishment. Regulation treatment. Treatment of obstinate cases. Author's experiments. Treatment by re-education. Different methods of treatment by various authors.

Definition.—Enuresis is the involuntary evacuation of urine in childhood in the absence of any gross pathological condition of the urinary apparatus. If the involuntary urination takes place during sleep, it is called *enuresis nocturna;* if during waking hours, it is called *enuresis diurna,* and if both by day and night, it is called *enuresis continua.* Involuntary evacuation of the bladder is normal in early infancy, but with proper training a child may be enabled to control its urine by day as early as the tenth month. Involuntary micturition at night continues much longer and, while some pediatricians do not consider it pathological even if it continues up to the end of the third year, others consider it pathological after the completion of the second year.

Etiology and Pathology.—Inasmuch as the normal act of urination consists in a reflex expulsion of the urine by the bladder, controlled by inhibitory impulses from the cerebrum, any condition which interferes either directly or reflexly with this mechanism may be the cause of enuresis.

In the infant, the contraction of the bladder and the relaxation of the sphincters are purely reflex and depend-

ent upon stimulation of the centers in the spinal cord. It takes time for the higher centers in the brain to gain control of the function of micturition and to bring it under control of the will.

Enuresis may therefore be due to a lack of development of the control or inhibition of the higher centers in the brain. To this class belong the enuresis of idiocy, imbecility, or other diseased conditions of the cerebrum.

In other cases, the pathology and etiology are entirely different. The reflex stimulation from the bladder may be so powerful that the cerebral inhibition is too weak to control it, as in the case in hyperacidity of the urine, or any other local condition which may be the starting point of powerful reflexes.

In order that the lumbar centers be stimulated into action, there must be present ordinarily more or less distention of the bladder. In some cases of enuresis there is a contracted bladder which becomes distended with very little urine in it, and so, especially at night, the reflex is soon started, and bed-wetting results.

In other cases there may be a hyperirritability of the lumbar centers themselves. In these, the accumulation of only a slight amount of urine in the bladder is enough to start such a powerful reflex as to overcome the inhibition of the higher centers, and the enuresis here is associated with increased frequency of urination.

In other cases still, the control of the higher centers is unduly weak while the lumbar centers are normal. This is the condition of affairs in ordinary cases of nocturnal enuresis. As long as the child is awake the controlling

influence of the higher centers is sufficient to keep things normal, but in sleep, with this control less powerful, enuresis ensues. Even by day, in some of these cases, if the child is deeply absorbed in some occupation, the control of the higher centers may at times be too weak to prevent enuresis.

In many instances, however, the pathology is not at all clear. Some cases appear to be due to a lack of proportion in the power of the expulsion muscles of the bladder and the bladder-sphincters, there being either normal sphincters and exceedingly powerful expulsive muscles, or normal expulsive muscles and weak sphincters. In still another class there seems to be a lack of harmony between the nerves which control the expulsion of the urine and those which control the action of the sphincters. This condition has been compared to the act of stuttering or other speech defects. In most cases, however, we cannot discover even a hint at the underlying pathological conditions, and this is true of between 90 and 95 per cent. of them. Many theories have been advanced to explain these idiopathic cases. Both Herrman[49] and Wachenheim[132] believe that they belong to the same catagory as the tics, or habit-spasms. Some instances seem to be hereditary, for we find whole families in which the majority of members have always suffered from enuresis in childhood. In other instances, we discover a condition of instability in the nervous make-up of the individual, and attention has already been called to the fact that many individuals who suffer from impotence after reaching adult life have, as children, suffered from enuresis.

It was assumed formerly, on purely theoretical grounds, that so-called scrofula or malnutrition was an etiological factor, but careful observation has shown the reverse to be the case, for well-nourished children, as a general rule, suffer more from this condition than their weaker brethren. Both hypothyroidism and hyperthyroidism have at times been the cause of enuresis. In some cases the administration of thyroid has proven curative, while it has also happened that, in children normal in this regard, the administration of thyroid for some other ailment has brought on enuresis.

Among additional reflex causes may be mentioned long, tight, or adherent prepuce and balanitis or narrow meatus in the male, vaginitis in the female, as well as rectal worms, rectal polyp, or anal fissure, kidney disease, bladder disease, diabetes, or organic nervous disease.

Burnet[19] claims that enuresis coming at rare intervals may be a manifestation of epilepsy, and is cured by bromides.

Many years ago adenoids were considered an etiological factor, but experience has not proven the causal relationship. In some cases the removal of adenoids, like any other psychic shock, has caused the cessation of the habit, but it has also happened that the removal of adenoids has brought on enuresis where the condition had not existed before.

Boys and girls seem to suffer in equal proportion. In girls the condition is more often kept secret even by parents, which accounts for the opinion that boys are afflicted more often than girls.

Symptoms.—In some cases the bed-wetting is simply a continuation of the normal condition of infancy. The child simply continues its nocturnal or diurnal enuresis without any interval of control. In other instances, however, the child had gained its normal control, and remained normal perhaps for several years before the enuresis developed. In this latter group I have been impressed with the fact that often the starting point was some illness. Thus, in not a few cases parents have told me that the child was entirely normal until an attack of measles or diphtheria, and one of my oldest cases was a young man of 17 who informed me that, when 8 years of age, both he and his brother (four years younger) were ill with scarlet fever, and that both of them had suffered from nocturnal enuresis ever since.

Except in the very severe cases, the children do not wet the bed every night, but generally skip one or two nights a week. Those suffering from *enuresis diurna* suffer almost always from *enuresis nocturna* as well, while children suffering from *enuresis nocturna* are generally able to control their water during the day. Many of the latter, however, if not allowed to leave the room promptly at school, pass the water in their clothes. This is not true enuresis, however, as it is not done unconsciously, but is simply due to feeble control.

There is the greatest irregularity in cases of nocturnal enuresis, whether treated or not. In some, without any reason whatsoever, a child will not wet the bed for one or two weeks at a time, and then continue the wetting as before. If a new remedy is tried at just this period, the

physician is apt to be very enthusiastic and credit the result to the treatment. The psychic element is generally well marked in these cases, it being a well-known fact, that almost any new procedure will stop the condition temporarily.

Diagnosis.—The main point in diagnosis is to exclude any pathological condition as a possible cause. The urine should always be examined as a matter of routine, so as to exclude the possible presence of diabetes, and we will also learn from this examination whether hyperacidity exists. In special cases we may have to examine the urine for tubercle bacilli, as tuberculosis of the kidneys and bladder have been known to be among the causes of enuresis. Such conditions as vesical calculus, cystitis, and urethritis must likewise be excluded as possible causes, and we must diagnose, if possible, whether the underlying cause has its seat in the cerebrum, the lumbar centers, or in the genitourinary tract. After all, however, over 90% of the cases are idiopathic, *i. e.*, we can find no pathological condition either in the local genitourinary organs or in the assimilative apparatus.

Prognosis.—No matter how obstinate these cases may be, most of them recover at puberty. The younger the child, the better the prognosis, for where the condition continues beyond puberty it is more likely to be very obstinate. Even here, however, most cases are cured with proper treatment and great patience and perseverance on the part of physician and parents. Enuresis in idiots, imbeciles, or sufferers from other grave cerebral conditions is apt to remain incurable. The prognosis as a general thing depends more upon the patience and perseverence of the

physician than upon any other factor, since 90% of the cases are idiopathic, without discoverable cause to work upon. The physician must not get discouraged because the child does not respond to treatment for a long time; nor must he stop treating the child because it apparently responds very favorably to his first medication. Such response is very apt to be temporary only, and he must therefore have patience with both classes and keep them under treatment and observation for a long time. The parents should also be told that long treatment and observation are necessary to effect a permanent cure.

Treatment.—Several years ago, through the courtesy of Dr. Charles Herrman, at that time Chief of the Pediatric Department of Vanderbilt Clinic, New York City, I made a special study of the enuresis cases coming to that institution, and made myself acquainted with all the available literature on the subject as well.

I was struck with the fact, however, that while many wonderful and quick cures are mentioned, many of these cures failed entirely or relieved the patient only temporarily when I gave them a trial.

As I became more experienced in the management of these cases, the explanation of these reported "cures" became clear. There is a very marked psychic element about enuresis, and any new therapeutic agent, be it electricity, silver-nitrate instillation, passing a sound, or a new prescription will temporarily stop it. Most of these "wonderful" cures mentioned are also quick cures, having been reported by the physician, after he had tried them for a few weeks only, and before the psychic element had worn

off. For this reason, a cure with any new remedy ought not to be reported until at least six months have passed, to ascertain whether the result is permanent.

General Treatment.—The general treatment is very important and should be carried out, no matter what regulation treatment is applied. In many cases, it is useless to attempt to treat enuresis without due regard to diet, mode of living, and other factors to be described presently.

In the first place, we must look for any local or general irritation, and treat this condition. This includes such sources of irritation as long, tight, or adherent prepuce, hyperacid urine, rectal worms, vesical calculus, vaginitis, urethritis, or any of the other conditions mentioned under Etiology and Diagnosis. These, however, amount to about 10% only of all cases of enuresis.

The child should sleep upon its side, for many children wet the bed only when lying flat upon their backs. For this purpose, wherever necessary, a towel may be tied around the child's body, with the knot so placed as to press upon its back when lying upon the back. The discomfort of this knot will compel the child to lie upon its side. I do not think it necessary, however, to blister the sacrum in order to keep the child off its back.

It is also advisable to have the pelvis of the child elevated during sleep. This has the effect of causing the urine, which accumulates in the bladder during the night, to gravitate toward the fundus, that is, away from the trigonal region. It is the irritation of the urine against the trigonal region which often starts the reflex of urination. The elevation of the pelvis can easily be accomplished

either by raising the foot of the bed or by putting a pillow under the child's pelvis.

It is advisable likewise to have someone note the time the child wets the bed during the night, and then to wake up the child just previous to that time on succeeding nights, and have it empty its bladder. This is an excellent method of procedure, but entails a large amount of inconvenience on the part of the parents, unless they happen to be wealthy enough to afford a special night nurse. To avoid this staying up and watching on the part of the parents, an ingenious device has been suggested, which consists of having one pole of a battery in contact with the diaper covering the child's genitals, and so arranged that as soon as the diaper is wet, a circuit is completed which rings an electric bell waking up the child or parent. I have had no personal experience with this method, and cannot therefore state whether it is practical.

It is always advisable to have the child empty its bladder just before retiring, and, if not inconvenient, to do so again before the parents retire, just before midnight.

It is absolutely useless and often harmful to punish a child for bed-wetting. It is far better to reward it for the nights when it does not do so. In *enuresis diurna* it is well to appeal to the child's pride, for in some of these cases the enuresis is kept up as a matter of habit, sometimes from sheer laziness on the child's part. In cases of contracted bladder, it is well to develop its capacity by having the child retain its urine at longer and longer intervals during the day, or by gradual distention of the bladder with fluid, by the physician, through a catheter.

When the urine is normal, it is best to reduce the quantity of fluid taken by the child during twenty-four hours by at least 25%. If, however, the urine is hyperacid, this reduction would only make matters worse, by increasing the relative hyperacidity.

A diet rich in sugar or starch is to be strictly avoided and often an antidiabetic diet is of distinct value. Red meat should be given only once during the twenty-four hours. The last meal should be taken not later than 6 P.M., and should be "dry" and not very heavy. At this meal we may allow cereals, butter, sugar, ice-cream, milk-toast, fruit and bread.

After 4 P.M. no fluid is to be given to the child at all. This rule must be rigidly enforced, except for the first week, when a little fluid may be permitted, the quantity of which is to be gradually reduced until the child is used to the regimen.

Regulation Treatment.—For the regular treatment of enuresis, nothing has thus far superseded belladonna pushed to its physiological limit and persisted in for a long time. I can do no better than recommend the method of administration advocated by Kerley, which I have followed with good results in most cases. One must follow his scheme as closely as possible, however, and parents must be warned in advance concerning the physiological effects of this drug, so that they may stop it at the right time.

Kerley[66] recomends a 1 : 500 solution of atropine, each drop of this solution representing gr. $^1/_{500}$ of atropine. Of this solution he prescribes 1 drop twice daily, at 4 and 7 P.M. increasing the dose until the physiological effect (di-

lated pupils or redness of the skin) is produced. The administration must, however, not exceed a maximum of 1 drop for each year of the child's age. Thus, a child 3 years old should never receive more than 3 drops of the solution twice a day; one 6 years old should never receive more than 6 drops twice a day. As a general thing, the physiological effect will be produced before this maximum is reached. Kerley gives the following scheme for a child 5 years of age:—

	4 P.M.	7 P.M.
1st day	0 drop	1 drop
2d "	1 "	2 drops
3d "	2 drops	2 "
4th "	2 "	3 "
5th "	3 "	3 "
6th "	3 "	4 "
7th "	4 "	4 "
8th "	5 "	5 "

We must not be discouraged if no improvement appears for two or three weeks. The diurnal cases respond more quickly than the nocturnal, that is to say, if the child suffers both by day and night, it will first cease its involuntary evacuation by day, and it will not be until some time later that any improvement will be noted by night. The first improvement noted at night will be a diminution in the number of wet nights. It may take a few weeks before the child has an entirely dry week, but when this occurs the treatment must not be stopped, else the child is sure to have a relapse. If the child has had two dry weeks, we may reduce the amount of drug by one-half and keep up this amount for six weeks. If there have been two dry months, however, we may stop the drug entirely, keeping

up the dry suppers for three months longer. In diurnal enuresis (without nocturnal) the same scheme should be followed except that the atropine should be given after breakfast and after lunch instead of at 4 and 7 P.M., while strychnine should be given at the same time.

Treatment of Obstinate Cases.—Most of the so-called obstinate cases are cases in which the above method of treatment had not been persisted in long enough, the physician or patient having become discouraged. Kerley has shown what can be done in so-called incurable enuresis. He put some of these patients on the above method of treatment, and although some of them did not show improvement for several months, still he persisted, continuing to treat them without interruption for an entire year. They were entirely cured, and although he kept them under observation for six months longer, there was no relapse.

Several years ago, I had under treatment a bright boy of 9 years of age who had suffered from enuresis for about six years. He was kept under continuous treatment of one kind or another for a period of over two years, with but little improvement. I carefully followed out the above scheme with no result whatever. The reason that it failed was possibly due to the fact that the boy seemed to have a tolerance for the drug. I then increased the drug until he received over twice the maximum dose for his age, yet there was absolutely no sign of a physiological effect either in the pupils, the skin, or the pulse. I tested his bladder capacity and found it even above normal, for he could easily hold over 10 ounces of urine during the day. I tried strychnine, thyroid, stypticin, cantharides, but

all without result. The only thing that had some slight effect was deep instillations of silver nitrate into his posterior urethra. After two years of treatment his parents became discouraged, stopped everything, and I have not heard whether anything further was done.

While studying these cases at the Vanderbilt Clinic, I experimented to ascerain what could be done in so-called obstinate cases, by treatment directed to the urethra. I gave deep instillations of weak silver-nitrate solution into the deep and anterior urethra, and was rather surprised to see how well these children will admit of such instrumentation, if the procedure is done with due gentleness. In a few of these obstinate cases, I have had some permanent successes; in others, however, no beneficial result was obtained. On the other hand, I have never seen the slightest harm follow this method. Curiously enough, my best results were obtained in females, by instilling silver nitrate into the urethra with a sound syringe.

I have often noticed that adults, after the prostate had been massaged, experienced difficulty in starting the stream of urine. The massage seems to have an inhibitory effect in most cases. Acting upon this experience, I thought that massage might possibly have a similar effect in enuresis, and accordingly tried this procedure upon a series of cases at the Vanderbilt Clinic, though without any beneficial result whatever. In one instance, I had a rather peculiar experience, but, as this was an isolated case, it is difficult to say whether it was merely a coincidence or the result of the treatment.

The case was that of a little boy about 8 years of age,

whose enuresis had been reduced by belladonna treatment before he was referred to me to one bed-wetting every two weeks. Further belladonna treatment, likewise before he came to me, did not relieve this semimonthly bed-wetting. I started to massage his prostate once a week, with the result that almost immediately the enuresis increased to five wet nights a week, and later on to every night. After that the case proved very obstinate, even though the massage was stopped after but three treatments.

It would take me far beyond the limits of this treatise to state all the methods and drugs which have been employed for the relief of obstinate cases of enuresis. A few of the more important ones, however, may be mentioned.

On the theory that enuresis is a habit spasm, it has been recommended to treat the condition by re-education. Accordingly, Herrman[49] treats his patients as follows:—

"He has the patient urinate at regular stated times, but on each occasion he is directed to void a little,—say, 2 drams; then stop, void 2 drams more, and stop again. This is continued until the bladder is emptied. This procedure exercises the mechanism which controls urination; and the patient trains and educates himself in the voluntary execution of the act. After this has been done under the direction of the physician for two or three times, the patient can continue it by himself."

Williams reported remarkable results from the use of desiccated thyroid. He administered gr. ½ of dried thyroid twice daily to children between 2 and 6 years of age, and somewhat larger doses to older children. Ruhräh[109] also tried this drug in cases which seemed to be

suffering from thyroid insufficiency, and states that he has had considerable success in a series of cases. The results were very prompt, coming on within a week of treatment, sometimes even after the first or second dose. In fact, according to him, no response can be expected unless the result is prompt. In this connection Williams noticed a marked increase in weight while children were taking the thyroid,—in one case, a gain of five pounds in a single week. According to Ruhräh, the thyroid need not be continued for a long time.

Lumbar puncture has been recommended by some authorities, but Allaria[2] states that he has obtained results just as good with pseudo-lumbar puncture. The procedure in both is the same, except that the solution is injected into the subcutaneous tissue instead of into the spinal cord. Allaria states, however, that marked results are not obtained by either method, and that whenever they occur they are really due to the psychic effect.

Radcliffe[98] has obtained good results from taka-diastase in cases associated with glycosuria.

Burnet[19] has called attention to the fact that enuresis coming on at long intervals may be merely an expression of nocturnal epilepsy and be cured by bromides.

Coutts[29] highly recommends the tincture of lycopodium, in doses of gtt. 20 to a dram *t. i. d.* He says it is almost a specific, but I have had considerable difficulty in obtaining tincture of lycopodium, many druggists claiming that no such preparation exists. In one case in which I tried it, however, the result was excellent.

Electricity has been recommended by various author-

ities. I have tried it on several occasions and sometimes with success, but believe that in the latter the influence was purely psychic.

CHAPTER XVI.

THE EVIL CONSEQUENCES OF WITHDRAWAL.

General considerations. Importance to general practitioners. Definition. Etiology. Pathology. Physiology of normal coitus. Pathology of withdrawal. Importance of experience in posterior endoscopy. Effect of withdrawal on female organs. Ignorance of the male about coitus. Symptoms. Local symptoms. Reflex symptoms. Illustrative cases. Diagnosis. Course and prognosis. Treatment.

Foreword.—The practice of withdrawal is one of the oldest and most wide-spread of sexual sins. Although many years ago Bangs[7] and others have called attention to the evil consequences following this practice, and I[56] have recently reported some interesting sequelæ in the same connection, the subject is of such great importance, and is so little appreciated, that I have decided to devote an entire chapter thereto.

It must be emphasized at the outset, that the evil effects of this practice are not of interest merely to the genito-urinary specialist, the neurologist, and psychiatrist, but they are even of more immediate interest to the general practitioner. There is hardly an organ in the body whose functions may not be deranged through reflexes from the genitals arising therefrom. Besides the symptoms of general neurasthenia, I have elsewhere[56] reported a case of symptomatic sciatica which resisted all treatment for a long time until it was referred to me. I was able to bring about a cure in a short time by local treatment to the patient's prostate, the condition being due to withdrawal. The patient had previously made no mention of this at all

in giving his history, not thinking it had any relation to his "sciatica." Another case, which will be reported herein, presented symptoms which suggested cardiac disease. These symptoms, lasting for years, and baffling the diagnostic abilities of several excellent internists, were due to no other cause than to reflexes starting from an insulted sexual apparatus.

It is for just this reason that the general practitioner must be interested in this condition and constantly bear it in mind as a frequent etiological factor. The patient does not know or suspect that this practice can harm; nor does he come to the physician saying that he practises withdrawal and has such and such symptoms. Far from it. He may come complaining of headache, or frequency of urination, or fainting spells, or attacks of vomiting, or excessive perspiration, etc., and it is only after tactful and painstaking cross-examination (especially in women) that the etiological factor of withdrawal is elicited.

Definition. —*Coitus interruptus,* or "withdrawal" (by some called Onanism), is the voluntary interruption of coitus by withdrawing the penis from the vagina before ejaculation takes place. We must include herein any attempt on the part of the patient to withdraw the penis before completed coitus, whether successful or not.

Etiology. —The object of the procedure is to prevent impregnation by having the ejaculation take place outside of the female genitals. In most cases there is a deliberate understanding between husband and wife to do this, and in other cases it is only the wife, who does not wish to be annoyed with the inconveniences attendant upon child-

bearing, who compels her husband to resort to this pactice. Economic stress is the reason generally given, and it is indeed rare for the woman to avoid pregnancy on account of the pains of labor. There are many other reasons given by both parties why they desire to avoid pregnancy, but the economic reason is the one most common.

Pathology.—To understand the pathology of withdrawal it is necessary to have a clear idea of the physiology of normal coitus, for, as in other conditions, the pathology is but perverted physiology.

The physiology of normal coitus in the male has already been given on pages 62-69, and the pathology of *coitus interruptus* in the male has also been given on pages 70-73. Only a brief description of the essential points of the physiology of normal coitus as well as the pathology of *coitus interruptus* will therefore be given here.

At the commencement of normal coitus, the seminal vesicles are more or less completely distended and impulses are sent from them to the erection center. The latter also receives impulses from the cerebrum as well as from the glans penis during the friction of coitus. (See diagrams, page 67.) Normally the erection center does not send out impulses to the ejaculation centers until it is completely filled up with the impulses it has received from the cerebrum, the seminal vesicles, and the glans penis. In this way ejaculation does not take place until an appreciable time after the commencement of coitus. The result is that the seminal vesicles are almost completely emptied and the erection center is left in a condition of complete quietude. The desire for coitus therefore does not come back for a

long time, until the seminal vesicles have again become completely distended, by which time the erection center as well as the ejaculation centers have completely recovered from tbeir state of temporary exhaustion. This time varies normally in different individuals. As a further result of normal coitus, the mucous membrane of the prostatic urethra, which just before and during coitus has been markedly hyperemic, has lost its congestion. The mucous membrane having resumed its normal condition, does not send impulses to the cerebrum until it is again rendered hyperemic at the next coitus.

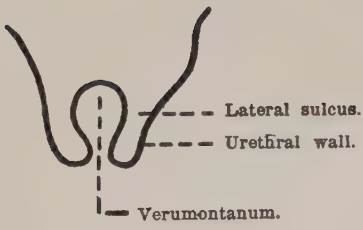
Let us now see what happens to all these parts as a result of the repeated practice of withdrawal. If the act of coitus is stopped before it is completed, the seminal vesicles have not been able to completely empty themselves, or to empty themselves as completely as during a normal coitus, and are thus left more or less filled. The mucous membrane of the prostatic urethra has not been able to completely deplethorize itself, and thus remains more or less congested after the act. As a result of all this, impulses are sent much sooner from the distended vesicles and the prostatic urethra to the erection center and the cerebrum, so that the desire for coitus is felt sooner than after normal coitus. The act is therefore repeated more frequently than it would have been in that particular individual after a normal coitus.

The seminal vesicles, being never completely emptied during withdrawal coitus, are constantly sending impulses to the erection center, while the mucous membrane of the prostatic urethra, being in a condition of chronic conges-

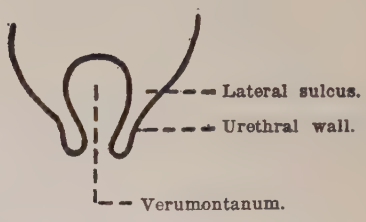
tion in consequence of repeated acts of withdrawal, is likewise sending continuous impulses to the same center whether coitus is indulged in or not. The result of these continued impulses sent from both sources, as well as the repeated demands made upon the center itself from the oft-repeated acts of coitus, is, that the erection center does not completely recover itself, and finally remains in a state of hyperexcitability. It thereupon loses its inhibitory function, and sends out impulses to the ejaculation centers the very moment it receives them. We thus get the clinical condition of rapid ejaculation or even premature ejaculation at the very commencement of coitus, with little or no erection. It must be remembered, however, that all this does not occur as a result of a single act of withdrawal, but only after repeated insults to the sexual apparatus, and it is often only after years of this practice that the harmful effects above described become evident. This condition of rapid ejaculation and later of premature ejaculation is the first stage of impotence. In the latter condition the erection center has become so hyperirritable that it sends out impulses to the ejaculation centers at the very first preparations for coitus, and ejaculation takes place before the penis has become sufficiently erect to enter the vagina. As a final result of a more or less prolonged period of hyperirritability of the erection center, the latter finally becomes completely exhausted and refuses to send out any impulses at all. The condition then becomes one of complete impotence, in which neither ejaculation nor erection can take place at all, no matter how strong are the impulses sent from the cerebrum, the seminal vesicles, or the penis.

If the posterior urethra be examined with the endoscope after the patient has practised withdrawal for a long time, we will find it in a condition of marked hyperemia. As a general thing the verumontanum will be found to be not only congested but swollen. One must have considerable experience, however, before he can determine what constitutes congestion in the posterior urethra, because the region of the verumontanum is normally of a darker red than the other parts of the urethra, and the pressure of the instrument also causes abnormality in the color of the urethral mucous membrane. With experience we can easily demonstrate a condition of chronic congestion which must be seen to be appreciated. Moreover, it takes considerable experience in posterior urethroscopy before the enlargement of the verumontanum can be recognized, as the normal verumontanum varies in size within very wide limits; thus in the colored race, for instance, the normal verumontanum is usually of very large dimensions, corresponding to the large size of the entire sexual apparatus. As a general thing it may be stated that we must consider the verumontanum in its relationship to the posterior urethra in any particular individual. In other words, a rather large-sized verumontanum would not be considered abnormal in an individual having a very wide prostatic urethra, while a verumontanum that completely fills the prostatic urethra, touching the walls of the urethra on either side, with hardly a trace of a lateral sinus is to be considered enlarged. (See diagram.)

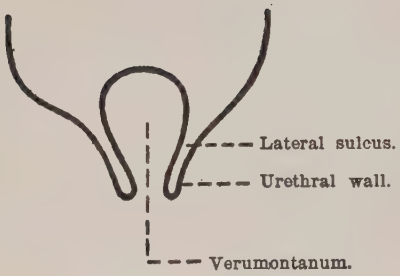
As already stated, we find congestion of the prostatic urethra in all these cases, but this pathological picture may



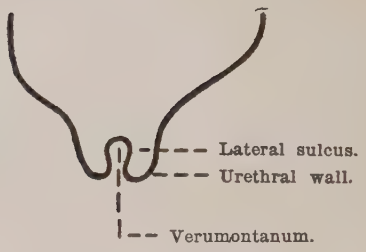
1. Normal verumontanum.



2. Moderately enlarged verumontanum.



3. Very enlarged verumontanum.



4. Atrophic verumontanum.

Diagrammatic pictures of normal and diseased verumontanum.

be brought about by many other conditions than the one under consideration. *One cannot make a diagnosis of the practice of withdrawal by merely looking through the urethroscope.*

The pathology in the female is similar to that in the male, but on account of the normally more passive part taken by the female during the act of coitus the results are much less severe, though at times we find sequelæ just as severe as in the male.

In the female, with the commencement of coitus, there is a general hyperemia of all the pelvic organs. In a normal coitus with fully developed orgasm, and the expulsion of the secretions from the genital glands, a deplethorization occurs, and the organs are left in their natural condition. If, however, the act is interrupted by withdrawal on the part of the husband, the orgasm either does not take place at all, or takes place incompletely, the sexual glands do not completely empty themselves,—in other words, the female does not really "come"; the pelvic organs remain hyperemic and, after this state of affairs has continued for a time, a condition of chronic congestion of the pelvic organs takes place, with all its disastrous results.

It should be mentioned that, in even so-called normal coitus, the woman does not receive the consideration she deserves in a vast majority of cases. From a very large clinical experience and study, I have come to the conclusion that probably not one of five men know how to perform the sexual act correctly. As a general thing, even in so-called normal coitus, the man only considers himself and not the woman at all. We find that when the desire

for connection and erection occurs, he immediately goes at it, whether the woman has the desire or not, and in many cases when she is but half-awakened. As soon as he has completed his part of the act, he stops and removes the penis. As a result, at the commencement of coitus, the woman is not fully excited, and only becomes half-way excited during the act, and remains excited because she has not nearly completed her part of the act when the husband ceases to perform.

In questioning many women I have been told that they experience little pleasure during the sexual act, but become excited afterward. Such women have no real orgasm and no perfect deplethorization. This state of affairs has been described many years ago by Sturgis,[119] but has not received the consideration it deserves. We see, therefore, that in even so-called normal coitus, in the vast majority of cases, there is left a certain amount of congestion in the female pelvic organs,—a condition which becomes much worse if the husband practises withdrawal.

Symptoms.—The symptoms may be divided into local and reflex. The sexual symptoms have been partly given in discussing the pathology. Briefly there is first a state of rapid ejaculation. The patient notices that the sexual act is more rapidly completed than before. This condition of overexcitability increases in severity until ejaculation takes place at the moment of complete erection or even before it. The patient states that as soon as his penis has entered, ejaculation takes place and the whole thing is over in a moment. He consequently obtains little pleasure from the sexual act. Later on ejaculation takes place so rapidly that

the penis has no time to enter the vagina (premature ejaculation). In the final stage the centers are completely exhausted, refuse to act, no ejaculation takes place at all, and erection is either weak or entirely absent; in other words, there is complete impotence, the libido may become diminished, absent, or not at all affected. This last condition is particularly unpleasant, as the patient has normal desire, but a complete lack of ability.

I desire again to emphasize the fact that not every case reaches this final stage, and that the time it takes to reach any of the conditions above enumerated varies within very considerable limits. In some cases it is remarkable to note the amount of abuse the sexual apparatus will stand before it rebels. Patients also vary widely according as the sexual or the reflex symptoms predominate. Sometimes frequency of urination results on account of the congestion of the posterior urethra.

Coming to the *reflex* symptoms, we find an entirely different state of affairs, and it is more particularly to these that I would direct attention. The sexual symptoms are not a source of confusion to any great degree, because the attention of the physician is at once directed to the sexual apparatus from their very nature, and the patient is treated accordingly, either by his regular attendant or is referred by him to the specialist. When, however, we come to the reflex symptoms we find them to be of widely divergent character, and many of them do not in any way suggest their sexual origin. There is hardly an organ in the body whose workings may not be disturbed by the reflexes coming from the abused sexual mechanism. These patients do not

come with their symptoms to the genitourinary specialist or to the neurologist, but to the general practitioner, the orthopedist, the gastroenterologist, the cardiac specialist, etc. They do not suspect the cause of their trouble, and unless the attending physician is on his guard and constantly bears in mind the possibility of this condition in doubtful cases, he may easily be led astray.

It would take us far beyond the limits of this treatise, to enumerate all the symptoms that may be brought about by this condition, and which are generally classified under the general term of "sexual neurasthenia." I will therefore mention only a few which are very interesting or very unusual types, and which came under my own personal observation either in my private practice, in the neurological department of Dr. I. Abrahamson at Mount Sinai Dispensary or in my own department of genitourinary diseases at Mount Sinai Hospital Dispensary, and in the Harlem Hospital Dispensary.

Cardiac Symptoms Due to Unnatural Sexual Practices. —Mrs. X. came to me complaining of a slight leucorrhea. The following history was obtained after careful and tactful questioning: She had suffered for two years prior to her marriage, about six years ago, from marked cardiac palpitation, together with a ringing in the ears and a feeling of throbbing in the region of the temples. Believing she had heart disease, she consulted several physicians, who failed to give any relief. She postponed her wedding and finally consulted a prominent internist in New York City, who found her heart normal and prescribed a tonic, but this likewise did not alleviate the symptoms. Finally she

married, whereupon all her symptoms disappeared and remained away for about four or five years, during which time she gave birth to two children. Within the past year or two, however, all her former symptoms returned with increased severity. This time they were accompanied also by marked swelling of both ankles, a morning edema under both eyelids, which disappeared during the day, and by urine of low specific gravity, with a diminution in the percentage of urea as well as a diminution of the total quantity of urea passed in twenty-four hours. The patient was now certain that she was suffering from both heart disease and kidney disease.

A vaginal examination disclosed a slight laceration of the cervix and some endocervicitis which was sufficient to account for the leucorrhea. I was struck, however, with the enlarged condition of the labia minora.

After careful and tactful interrogation, she finally told me that she had practised masturbation before marriage, and on further questioning, she confessed that for the last few years she had not desired an increase in her family and had prevailed upon her husband to practice withdrawal. Later on she had allowed him to have coitus only between her thighs, not permitting any intromission.

Considering this case in retrospect we at once note a definite history. It is a history of reflex cardiac and circulatory disturbance during masturbation, followed by marriage with normal sexual relationship for several years, during which children were born and during which time all the symptoms vanished. This in turn was followed by a period of abnormal sexual relationship, in consequence

of which, the symptoms immediately returned with increased severity. I sent this patient to a prominent internist, telling him of my suspicions. After careful examination, the latter confirmed my diagnosis, finding the heart, kidneys and blood-pressure normal. I explained the cause of the symptoms to the patient and, although she was skeptical, she promised to follow instructions, with the result that all her symptoms rapidly vanished.

Cases like the above have been described by Max Hertz and others, but, as we have seen, they are often overlooked and in the one just presented, the condition baffled the diagnostic skill of many physicians as well as that of a prominent consulting internist. Had this patient in addition had some real valvular lesion accompanied by a murmur, it can be readily understood how much more obscure the case would have been and how easily all her symptoms might have been ascribed to a cardiac condition.

Symptoms of Sciatica Due to the Practice of Withdrawal.—Although this case has been reported by me elsewhere,[56] it is such an unusual type, that I feel justified in repeating it here.

The patient, A. W., a painter, had been treated at various neurological clinics for over a year for sciatica of the left side. He had had the usual treatment. His previous history is briefly as follows: Patient complains of pains in the left lower extremity; is excitable; has severe tenderness in the left sacroiliac joint. He was treated by electricity, including the high-frequency current, hot air, hot baths, as well as iodide of potassium, but all without avail. He finally had to stop working at his trade, as he could

not climb ladders or work on scaffolding. His general condition was poor and he looked much emaciated. He was then referred to me for examination. I found the prostate enlarged and tender; but especially the left seminal vesicle (the side of the sciatica) was very much enlarged and nodular. This, with his emaciated condition, and in the absence of a history of gonorrhea, made me suspect tuberculosis. However, an examination of the secretion of his vesicles and prostate obtained by massage, as well as his urine, failed to show any tubercle bacilli. I cystoscoped him also, and found his bladder normal. I treated him by massage of the prostate and seminal vesicles, at first once a week and later every other week. After six treatments he felt much better, and after ten treatments was entirely cured and could do all the work necessary in his trade. The local condition of his prostate and seminal vesicles also became normal, and his general condition markedly improved.

In this case it must be borne in mind that there had been absolutely no improvement for over a year, and that while under my care the patient received absolutely no treatment, medical or otherwise, except massage of the prostate and vesicles. The etiological cause in this case was the practice of withdrawal, of which, however, the patient made no mention in giving his history, not thinking that it had anything to do with his condition. This case recalls to my mind the good results obtained by Fuller in the treatment of chronic arthritis (even in non-gonorrheal cases) by drainage of the seminal vesicles.

Nervous Exhaustibility Due to Withdrawal.—This is a

very common condition and is merely inserted to illustrate a common type of sexual neurasthenia: M. L., aged 39, married, but separated from his wife; complains of loss of memory, lack of concentration of interest, and other general nervous complaints. These symptoms are common to the most diverse nervous conditions, and it was only after more minute interrogation that the following important facts were brought out in the patient's sexual history, which contained the clue to the etiology, and to which the patient in the first instance attached little importance. It was elicited that the patient had lost all sexual desire and that for some time previous to his separation he had practised withdrawal. Upon examination, a very enlarged and tender prostate gland was found, and the posterior urethroscope showed a remarkably congested prostatic urethra.

Patient was treated by massage of the prostate and by the application of 10% silver nitrate to his verumontanum through the urethroscope.

The improvement was very gratifying and very rapid. After a few treatments the patient himself remarked that he was regaining his former energy.

As stated at the beginning of this chapter, the etiology might seem very easy when read in connection with the diagnosis placed at the head of the history, but it is a far different state of affairs when the patient attends the neurological clinic, mingling with many organic and functional nervous cases, giving no sexual history of himself except such as is painstakingly elicited by the examiner.

Pain in Skin of Penis, Complete Impotence and General Neurasthenia Due to Withdrawal.—This patient came to

the dispensary complaining only of severe pain in the skin covering the penis, without urethral pain; further investigation of his history, however, brought out the fact that he had reached the final stage of impotence, with complete exhaustion of both the erection and the ejaculation centers due to withdrawal.

D. D., male, age 45; married eighteen years; father of 4 children; last child born eighteen months ago; came into my clinic at Mt. Sinai Hospital Dispensary, complaining only of severe pain in the skin of the penis. The pain was strictly limited to the penile integument, and did not at all affect the perineal integument. The patient also complained of vague pains in the abdominal region. He had no pains whatever in the urethra and no pains connected with urination. He gave a doubtful history of urethritis ten years earlier, but did not remember whether he had any urethral discharge at that time. Endoscopy of the anterior urethra showed a normal urethra with several congested follicles. His meatus was too small for posterior urethroscopy, and the patient objected to meatotomy.

Investigating his history more minutely, the following facts were disclosed. He has been absolutely impotent for two years past, and can neither have an erection or ejaculation. Previous to this, he had suffered for about six years from rapid ejaculation and feeble erections, which constantly became more and more feeble until the present state of impotence ensued. This condition of feeble erection and rapid ejaculation did not prevent him however, from impregnating his wife, who gave birth to a child eighteen months ago. About eight years ago, and while

still sexually active, he had suffered from frequent nocturnal pollutions, at least once every night and somtimes two or three a night. In fact, he even suffered from pollutions when indulging in coitus. For the past four years he has not had any wet dreams whatever, even though he has had no coitus at all for two years. The patient admitted to having practised withdrawal for four years, starting about eight years ago. Besides the urethral findings just mentioned the examination revealed a slight mitral murmur, abdomen negative, slightly enlarged axillary, cervical and inguinal glands. His prostate is moderately enlarged.

In this case, besides the general neurasthenic symptoms, we have elicited from the patient a perfect history of the course of events consequent upon withdrawal. This is an extreme case. It presents a history of withdrawal for a period of four years. At first erection and ejaculation are good, but the patient suffers from frequent pollutions (overexcitability of the ejaculation center). This is followed by a history of gradually weaker and weaker erections, together with rapid ejaculation (extreme excitability of ejaculation center, with gradual weakness of erection center). Finally, there is neither erection nor ejaculation, nor are there even wet dreams. In other words there has been a complete paralysis or exhaustion of both the ejaculation and erection centers. These facts may be translated into pathological parlance as follows: The erection center is being continually bombarded by reflex stimulation, due both to the distention of the seminal vesicles caused by incomplete emptying, and to the chronic congestion of the

deep urethra, due to withdrawal. As a result, impulses are being continually sent to the ejaculation centers until the latter becomes so hyperirritable that at night, when the inhibitory influences of the cerebrum are lacking, the slightest additional stimulation such as the heat of the bedding, etc., is sufficient to bring on erection and ejaculation (*i. e.*, numerous wet dreams). As the disease progresses the erection center finally becomes so extremely hyperirritable during coitus, that it sends impulses to the ejaculation centers even before it is completely filled up with impulses from the glans penis, the seminal vesicles and the cerebrum (see Fig. 4, page 67). In other words, the erection center has lost its function of holding back these impulses until the proper time, and the condition of rapid ejaculation is the natural sequence. Finally, both the erection center as well as the ejaculation centers become completely exhausted and no longer respond to any stimulation from the penis, seminal vesicles, or the cerebrum, no matter how strong such stimuli may be. When that stage is reached there is neither erection nor ejaculation; the patient is absolutely impotent and cannot even have a wet dream.

Gastrointestinal Symptoms and Impotence Due to Withdrawal.—A. R., referred to me by Dr. Abrahamson in May, 1913, was 55 years old, married twenty years, and the father of 7 children, his last child having been born seven years ago. It may be stated in passing that in order to obtain a confession of withdrawal from some of these patients I inquire, as a routine procedure, for the date of the birth of the last child or the date of the last miscarriage. If it appears that many years have elapsed since the last

pregnancy, I ask why his wife has not become pregnant in so long a time, and directly suggest withdrawal as the probable cause. The patient, thus taken off his guard, generally confesses to the practice, whereas he would probably have denied it if questioned directly.

This patient complained of belching, of regurgitation of food, and of vomiting. Upon further questioning he also complained of seminal losses during defecation, and of impotence for five years past. He admitted to practising withdrawal for the past seven years.

On account of his age and very emaciated appearance, I did not feel justified in ascribing his gastrointestinal symptoms to withdrawal until I had had him examined by an internist for possible carcinoma or other gastrointestinal disorder. However, the internist found the gastrointestinal tract practically normal, and I thereupon instituted a course of treatment to be hereinafter described, which had the result that after two months the patient was able not only to have normal coitus for the first time in five years, but that all his gastrointestinal symptoms left him, he gained in weight, and again felt in perfect condition.

Diagnosis.—The diagnosis can only be made by bearing in mind the possibility of such an etiological factor in conditions otherwise obscure. One often has to be very tactful in order to elicit a confession of this practice, especially in interrogating the female. It is often useless to ask either party directly whether they indulge in it, as they may often deny it. As a practical point, I have found it expedient to catch the patient off his (or her) guard, either before or after examination. I inquire, in my routine

manner, how long the patients are married, how many children (or miscarriages) they have had, and the date of the birth of the last child or pregnancy. This generally arouses no suspicion. Then, if I see from the history that the parties have had one, two, or more children in the first few years of married life, and none at all in the last four or five years, I ask why, and immediately suggest withdrawal or other preventive means. Generally the patient will then confess to the practice. We must not neglect to suspect it, however, even if there has been a recent pregnancy, because the practice is not successful in many cases, and pregnancy may result in spite of it.

Having made the diagnosis, we must not fall into the opposite error of blaming all the patient's symptoms on withdrawal, but constantly keep in mind the possibility of errors in refraction, in digestion or assimilation, etc., as possible causes for some of the symptoms.

Course and Prognosis.—The course of the disease is often a direct reversal of the course of onset. The general neurasthenic symptoms frequently disappear with remarkable and startling rapidity. Even when they disappear more slowly, the patient himself notices the improvement between each successive visit. It is in the sexual symptoms that we often observe the reversal in the course of symptoms mentioned above. Thus, in those cases which had gone on to the stage of complete impotence, the first attempts at coitus may be marked by premature or rapid ejaculation. But this must not discourage a patient, as it is a sign of improvement in that particular case, since a partial coitus is an improvement on none at all. Finally, the lengths of

coitus increase until the normal is reached. The patient must be told that his first attempts will naturally be weaker than normal, and must be assured that in a little while they will become entirely normal. At this stage he must also be cautioned not to abuse his newly developed power, but to have coitus at rather long intervals for a while, and only when he has strong desire. He should be cautioned particularly against experimenting himself, by making attempts at coitus without any desire at all, simply to see if he can effect it. In those cases which were characterized at first by the presence of frequent pollutions and later on by an entire absence of all pollutions, there may be a reappearance of the pollutions while they are progressing toward recovery, before the final normal state is reached. This phenomenon often discourages the patient but, again, it is a sign of improvement, as it shows that the sexual centers, previously completely paralyzed, are now again beginning to respond to peripheral impulses. Whenever this occurs, it is an indication to omit massage of the prostate if it has been employed. As already indicated, the prognosis is excellent in most cases.

Treatment.—The treatment of this condition is both rational and simple, and the results are correspondingly gratifying. Nothing is more easy to treat than impotence caused by withdrawal. Incidentally it may be stated that, despite the popular opinion to the contrary, impotence as a general thing is very easy to treat and very easy to cure, *if we know the etiological factor or the pathological lesion underlying the condition.* Impotence is but a *symptom,* and to treat it as if it were a disease, or a distinct entity,

is a serious error, and is nothing more or less than guesswork.

As has been pointed out in discussing the pathology of withdrawal, there is at first increased irritability, and later on an exhaustion of the erection and ejaculatory centers, together with a congestion of the entire prostatic urethra. In the female almost all the symptoms are reflex, but some of these may be explained by the chronic congestion of the pelvic organs. Owing to the more passive part taken by the female during coitus, the symptoms are not so pronounced, and are often absent altogether. Inasmuch as even in the case of the female, the cause of the condition is due to the male, there is no special treatment for the female except the giving of advice for her partner.

The first thing to be done is to bring about a condition of sexual rest. This means, not only abstaining from coitus, but abstaining from anything that may reflexly or otherwise irritate the sexual centers. The couple should not sleep in the same bed; they should avoid spooning, hugging, kissing, etc. Strict and explicit instruction should be given on this point, for many patients believe that they may do almost anything, so long as they abstain from coitus. As a matter of fact, however, I would much rather have a married man perform coitus than have him excite himself into an erotic condition by spooning, etc., and then stop. As stated above, there must be absolutely no sexual excitement of any kind whatsoever.

In reading the histories of some of the cases cited, the reader may have noticed that in many of them the symptoms did not come on immediately after the commencement

of the pernicious practice, but some time afterward, perhaps even at a time when the practice had been given up and normal coitus was being induged in. In many such cases it is hard to make the patients understand that the previous withdrawal is responsible for their symptoms. Their answer is that they felt all right while indulging in the practice, but have been feeling badly only now when they are having normal coitus. Nevertheless, the pathology is clear and the symptoms are easily explicable. The centers in these cases have begun to become hyperirritable, and the prostatic urethra has just commenced to become congested, so that even the additional excitement of the centers during normal coitus, or the additional hyperemia of the prostatic mucous membrane of normal coitus, is an irritation which, if continued, will still further increase the pathological condition and symptoms, or will bring forth symptoms if none have previously existed. It is for this reason that absolute sexual rest (which means, not even normal coitus) is so essential. How long this period of rest is to continue varies with each individual. It depends upon the stage of the disease and the sexual habits of the patient. At least two months' rest is generally necessary, and in many cases four to six months' rest is not too long. If the patient can be sexually separated from his wife for a time, it is, of course, much better. The wife should be instructed, if possible, as well as the husband; for, otherwise, if she be kept in ignorance, she may counteract the treatment by insisting on connection, if she be at all a passionate woman. Many of the good results achieved in Germany, by sending the husband to some particular "kur"

place, are not due to drinking the waters at all; nor solely to the hydrotherapeutic measures employed (although these are of value), but to the enforced continence, and to keeping the patient's mind occupied, and away from sexual thoughts. Of course, each case is a law unto itself, and the physician must take into consideration the sexual characteristics of the particular patient, particularly guarding against the likelihood of the patient indulging in extramarital coitus if kept away from his wife for too long a time.

The next indication is to reduce the hyperirritability of the sexual centers. For this purpose nothing is so useful as the bromides, which must be given in fairly large doses. I generally start with 15 grains of sodium bromide four times a day, taken in sweetened water, half an hour after meals and just before going to bed. Later, I reduce this to three times, twice, or once a day. Besides having the effect of diminishing the excitability of the sexual centers, the bromides have the additional advantage of greatly reducing, and in many instances taking away for the time being, all sexual desire. This greatly conduces toward continence, which is so essential to the treatment. It is also necessary to explain to patients who come for treatment for impotence, due to withdrawal, just what we are trying to accomplish, and what the effect of the medication will be; otherwise they will complain that they are worse off during the treatment than before, having now lost all desire as well as potency. This reduction of desire is only temporary, however, and I have never seen any permanent harm to the sexual apparatus due to the proper use of bromides,—at least, for the length of time that it is neces-

sary to employ them in the condition under consideration. Another great advantage of the bromides is the almost immediate amelioration of nocturnal pollutions. In order to further suppress the irritability of the centers, it is best to avoid all alcoholics, as well as tea, coffee, eggs, and oysters, all of which stimulate sexual desire.

The next indication is to reduce the congestion of the prostate and prostatic urethra, for as long as these remain congested they are continually sending erotic impulses to the sexual centers in the spinal cord as well as to the cerebrum. To accomplish this, nothing succeeds so well as the application of silver-nitrate solution to the affected parts, and in some cases massage of the prostate. At first, when the congestion is intense, we should start with a very weak solution (1 : 3000) instilled *very gently* with a small-size Bangs sound syringe. As the case progresses the solution should be increased up to 1 : 500. The sound syringe used should be larger and larger until the capacity of the meatus for sounds is reached. All manipulations in the urethra must be done slowly and gently, while the instillations should not be given oftener than once every fifth day, and less often later on. In many cases this is all that is necessary to bring the mucous membrane back to its normal condition. In some particularly bad cases of impotence, however, we may have to employ something more stimulating to the mucous membrane, toward the end of the treatment, and when we have stopped the sedative medication and are employing stimulating treatment to be described hereafter. In this condition nothing acts so well as the local application of 10% silver nitrate to the ve-

rumontanum through the Wossidlo-Goldschmidt posterior urethroscope. To those who have never used this instrument, it will be a revelation how clearly we can see the verumontanum and its adjacent structures, how distinctly we can recognize any pathological condition of these parts, and, particularly, how *easily and accurately* we can make an application to whatever spot we desire. It may be well to emphasize that it is not in every case that we need to make a direct application, but only in obstinate cases of impotence, and in these it is certainly most effective. These strong applications should not be made more often than once a week at the utmost, and should be made only at a time when the acute congestion has been substantially removed by the previous instillation treatment.

As regards massage of the prostate, this is an excellent procedure, but it has its limitations. Much harm may be done by it, if used at the wrong time, or in the wrong manner. *Massage of the prostate should never be employed when the patient is suffering from frequent pollutions,* and should be stopped whenever, in the course of treatment, pollutions become frequent. In other words, in many cases originally uncomplicated by pollutions, and where massage is proper, the massage sometimes brings on pollutions, and in other cases it increases their number. Where this is the result, however, it should be discontinued at once.

The method of massage to be employed is likewise of the utmost importance. It is unfortunate that every manipulation of the prostate *per rectum* is described as "massage," whereas a distinction should be made between *expression* and *massage.* To illustrate: In certain forms

of chronic gonorrhea, where either for diagnosis or treatment we are trying to rid the prostate of gonococci, it may be necessary and justifiable to employ considerable pressure in order to squeeze out the secretions of the gland, as well as those of the seminal vesicles, and even here caution is necessary. In the condition under consideration, however, our object is not to squeeze out the last drop of pus from the follicles, but to relieve congestion. Here it is necessary to perform "massage" in the strict sense of the word. A hard and painful squeezing of the parts can no more be called "massage" than giving a man a severe punch in the stomach can be called massage of the stomach. We must remember that the parts are congested and tender, and that our manipulations must therefore be exceedingly gentle and of very short duration. As the case improves we may use firmer and firmer pressure, of longer and longer duration. Done in this way, and within the limitations outlined above, massage of the prostate is an exceedingly useful adjunct to the treatment.

As the patient improves, the bromides are gradually withdrawn and the limitations in diet are removed little by little. If impotence is the main symptom, we now employ stimulating measures, and for this purpose nothing acts better than strychnine nitrate, given in fairly large doses just before the expected coitus. This has no effect upon the sexual desire, but if the desire is present it has the effect of making the penis erect and firm.

Besides the prohibition of the practice, our treatment in brief is as follows: The patient is given instructions both as to continence and diet. At first he is given 15

grains of sodium bromide four times a day, which is gradually reduced. Every fifth day, and less often later on, he is given a deep urethral instillation of silver nitrate in gradually increasing strengths, together with proper massage of the prostate. Still later, direct applications of strong silver nitrate to the verumontanum region through the posterior endoscope may be necessary. The limitations as to diet are gradually removed, the bromides reduced in frequency and finally stopped altogether, while strychnine nitrate is given for impotence if it exists.

It will be noticed that no mention has been made of electricity or any other form of psychic treatment, for I cannot state too emphatically that the results of withdrawal are entirely pathological, and not merely imaginary. The lesions actually do exist, and the pathological condition in the urethra can actually be seen. The results of the treatment can be more readily appreciated by looking through the endoscope and noting the condition of the prostate. To tell a man who is impotent from withdrawal that he is merely imagining his condition, is to court well-deserved ridicule. The treatment as I have endeavored to describe it, is based upon a rational understanding of the pathology of the condition, and the results are exceedingly gratifying.

CHAPTER XVII.

CONTINENCE.

General considerations. Importance to general practitioner and every specialty. Social and economic considerations. Prevention of spread of venereal disease. Prophylactic treatment of venereal disease. Chances of infection from illicit coitus. Abortive treatment of venereal disease. Is continence physiological? Views of physiologists. Views of various authors. Masturbation and continence. Sexual perversion due to continence. Author's opinions. Views of neurologists. Continence and impotence. Coitus not merely for purposes of procreation. Continence contrary to nature. Author's deductions. Improvement in morality as compared to the past.

The subject of continence is one of vital importance, not only to the genitourinary specialist and neurologist, but to every specialist and general practitioner, for what organ or function of the body is there which has not been attacked by, or is immune to, the ravages of syphilis? And yet, how neglected is this important subject! Examine our standard textbooks on venereal diseases, and while you will find therein elaborate discussions of the evil effects of non-continence, in how many of them is there a chapter on continence. Several years ago I examined most of the standard textbooks on physiology written in the English language, and could find practically no reference whatever nor any information as to whether continence is physiological or not. The absence of reference to continence in works devoted to venereal diseases is a positive defect in such works. The gastroenterologist not only cures his patient of his present attack of indigestion, but also gives him instructions about his diet and mode of living in order to

avoid future attacks as well. The cardiac specialist not only relieves his patient of his disturbed compensation, but instructs him most minutely how to conduct himself in the future in order to prevent future decompensations, if possible. He would indeed be a poor phthisisist who would not inform his cured consumptive patient how to live thereafter in order to remain well. Why then should the genito-urinary specialist, after having cured his patient's first gonorrhea, not warn him how to conduct himself in the future in order to prevent more serious trouble?

It is about six years ago that I[54] wrote upon this subject in connection with prophylaxis in gonorrhea. In that article I blamed the medical profession for much of the spread of venereal disease. I also cited cases to prove my formula, that illicit connection equals venereal disease.

Great strides have taken place in medicine since that time. The Wassermann reaction and the complement-fixation test for gonorrhea have confirmed our suspicions, and have still further emphasized the terrible consequences of both syphilis and gonorrhea, and the relationship, hitherto merely suspected, of these diseases to incurable conditions of many vital organs. The public press and the stage have brought home to the lay public, in no uncertain language, the possible consequences of illicit coitus. Our young women have become enlightened in these matters, and sex education is the order of the day. They are no longer willing to allow their genitals to be made a culture medium for the gonococcus and *Spirochæta pallida.* They refuse to be deprived of the pleasures of motherhood or of only bringing into the world children deformed or otherwise

handicapped with the ravages of congenital syphilis. They object to being castrated or spending a life of misery in return for the privilege of exchanging "Miss" for "Mrs."

Side by side with this enlightenment of the public on sexual matters, another factor has made itself felt for some time, and that is the social-economic factor. This is no new influence, though it is more keenly experienced today, perhaps, than ever before. With the underlying causes of this factor, we, as physicians, cannot concern ourselves; it belongs to the domain of political economy rather than to that of medicine. But, whatever the cause, the results stare us in the face, and serve to bring the question of continence into prominence all the more. As a result of the greater number of conveniences which the average person now enjoys, the better housing, the more skillful medical attention, the greater number of luxuries of the average person today, compared to many years ago, when people were content to live in rear tenements, and when even the better-class apartments could not compare in convenience with those of today—as a result of all this, and of many other social economic factors too numerous and complicated to discuss, the relative cost of living is far greater now than heretofore, and the young man cannot enter matrimony at as early an age as he could fifty or a hundred years ago. If he expects to live in merely fair comfort, and to give his prospective children the benefits of modern education, he must defer his marriage until his income is far in excess of that which his grandfather or even his father had when they were married.

We have therefore the following three alternatives:—

1. Illicit coitus equals venereal infection.

2. The modern girl refuses to marry a man infected with venereal disease.

3. Social-economic conditions prevent early marriage.

We, as physicians, cannot alter the third condition, for we can neither reduce the cost of living nor increase wages. Likewise, we cannot alter the second condition, for we may not say to the modern girl "You must marry an infected man"; nor would we if we could.

It is, therefore, only with the first proposition that we, as physicians, have to deal. We are confronted with the condition, that a man cannot marry as soon as his sexual organs are ripe, that if he has illicit connection, he becomes infected with venereal disease, and that if he becomes infected and is not cured he cannot get married. How, then, shall we meet this problem?

I desire to state at the outset, that I am discussing the subject only from the standpoint of the physician, and not that of the moralist, and that it must be discussed in the light of present-day knowledge upon the subject of venereal disease. Perhaps it may be possible, at some future time, to render people immune to gonorrhea and syphilis, just as we render them immune to smallpox, or to abort the disease immediately after it has been contracted, and before any serious results have ensued. When that time comes, the entire subject will take on an entirely different aspect, and will perhaps be discussed entirely differently.

The answer that comes most readily to our minds is: Prevent the spread of venereal disease, or, if that is not feasible, abort it or cure it rapidly and permanently.

The prevention of the spread of venereal diseases involves the whole question of the suppression of prostitution. This is a very complex question and volumes have been written upon the subject. Without going into the causes of the failure, it is an absolute fact that from time immemorial, civilized nations have struggled with this problem, and have always failed to suppress it, except temporarily. Heavy fines, imprisonment, and even the death penalty have been imposed at various times, but without success. In New York City attempts have often been made to eliminate houses of prostitution, but, thus far, all these efforts have had only a temporary effect. Prostitutes were driven merely from one district to another, and no permanent suppression has taken place.

As a further means of preventing the spread of venereal disease, we have the immediate treatment of the patient right after exposure. Undoubtedly the method employed in the army and navy has had excellent results, but it has its limitations. In the first place, the strict military discipline which can be applied to soldiers and sailors can never be applicable to the general public, and, in the second place, this prophylactic method does not remove the danger of infection, but only reduces the chances of infection. In other words, if a thousand sailors expose themselves to infection, a larger percentage will escape infection under the army and navy method than before. Not even the most enthusiastic adherent of this method would claim that any particular individual would escape infection by employing the prophylactic army and navy package. What then are the chances of infection from illicit intercourse?

It goes without saying that if a person has connection with a prostitute he ought not to be surprised if she infects him. Even those houses that have a visiting physician are not safe, especially as regards gonorrhea, for the following reasons:—

I. It is easy for the woman to douche before examination and so deceive the physician.

II. The woman may become infected between the doctor's visits, or show the first signs of the disease between the visits.

III. The chronic or so-called "cured" cases form the most important source of contamination in this group. It is perfectly possible that a woman who has had gonorrhea may show absolutely no pus or discharge whatsoever on her genital organs, and that scrapings from them may show no gonococci either when directly examined or even on culture; and yet this woman, under the stimulus of sexual excitement, may pour out millions of gonococci with the mucus from the glands where they are hidden and infect her partner. Those who have paid particular and careful attention to this source of infection will agree with me that *practically* once a woman has had gonorrhea there is no way of telling from physical examination whether she is cured or not.

Then we have the servant-girls, the chamber-maids, and other "sure things." To anyone who has had a large experience in venereal diseases it is a standing joke to see the large amount of disease contracted from these so-called "sure things." To all patients of mine alleging to have such a "sure thing" I have but one answer, and that is,

"If they go with you they go with others, and so you are not safe."

Lastly, we have married women, especially the so-called "respectable married women." I have had several cases that have made a deep impression upon me in this respect. I have had two ladies under treatment who were eminently and absolutely respectable and above all suspicion, and yet both were suffering from gonorrhea, having been infected by their husbands, who, by the way, were also under my care. Now, here is the point I wish to emphasize: Surely, if any stranger could entice either of these ladies to have connection, he could be absolutely certain of their respectability and also as absolutely certain of contracting gonorrhea. If one has connection with a married woman he must be able to guarantee for her husband, which is, indeed, a very difficult matter. Moreover, the very fact that she has connection with him proves that she is not respectable, and brings her in line with the arguments advanced against the other "sure things."

As a practical proof of all these arguments, it may be advanced that the rich, who surely can obtain anything they desire, with their money, suffer just as much from venereal diseases as do others. Taking it all and all, we may practically sum up the whole thing by the formula: Illicit connection is equal to venereal disease.

Even the use of the condom is not an absolutely safe protection, for I have seen cases where the condom broke and gonorrhea was contracted, and also where the initial lesion on the penis occurred high up near the root and above the level of the condom.

Although great strides have been made in the treatment of venereal diseases in the last few years, their abortion or rapid cure has not yet been realized. In syphilis, the idea of aborting the disease with salvarsan has proven a failure, and in spite of the excellent therapeutic properties of this preparation, we cannot cure syphilis any more rapidly than before. Surely, no conscientious physician would permit a syphilitic to marry before several years of observation have passed. With the present use of the Wassermann test, we actually keep the patient under observation much longer than previously in many cases. In gonorrhea, the abortive treatment is successful only in a very small percentage of cases, and is only applicable to patients who present themselves within twenty-four to thirty-six hours after the beginning of the discharge. The complement-fixation test and modern improved cultural methods in diagnosis have likewise had the effect of keeping the patient under observation much longer than previously.

We see, therefore, that in spite of the progress in medicine the prevention, abortion, or rapid cure of venereal diseases has not been realized, and has not helped to solve the situation under consideration. On the contrary, advances in medicine have but emphasized that our most careful methods of diagnosing a cure so far have been inefficient.

We now come to the question of continence as a possible solution of the difficulty. This question must be discussed with perfect freedom, and with due regard to all the arguments *pro* and *con.* To ridicule it, and call everyone a fool who differs from one's pet opinion, is not scientific argument.

Having shown that it is practically impossible to avoid venereal disease when having illicit intercourse, we now come to the questions: Is illicit intercourse necessary? Is continence physiological and in harmony with perfect health? Can a young, unmarried man remain continent and still be healthy?

Upon the answer to these questions hinge a large portion of the causes of the spread of venereal disease, for it must be acknowledged that this portion of medicine bears exactly the same relation to morality and religion as every other portion of medicine. In every religion the most stringent laws are to a certain extent subservient to those of health. The orthodox Hebrew may eat articles of food proscribed by the dietary laws if necessary to his health. Even the rite of circumcision and the abstinence from food on the Day of Atonement, the most sacred customs to the orthodox Hebrew, may be interfered with if health is at stake. The religious Catholic and Protestant may neglect abstaining from food on certain fast days if prejudicial to his health. And so it is with the subject under consideration. Our clergymen may preach chastity and purity from morning till night, and may bring to their aid the most potent religious, moral, and ethical arguments; if the physician, however, says that it is detrimental to health to be continent, that coitus is absolutely necessary for the healthy adult, our patients will throw aside the teachings of the clegyman and listen to those of the physician, and (I say it with deep religious feeling) will be perfectly right in so doing. No matter what the law says, no one would condemn a hungry man for stealing a loaf of bread

to eat, and none ought to condemn a healthy adult for having connection if this is absolutely essential to his existence. And, as I have shown that practically illicit connection equals venereal disease, if we physicians consider illicit connection necessary, we ought not to wonder at the prevalence of venereal disease, or hope to see it decrease.

In the following pages I shall endeavor to prove that continence is not detrimental to health, considered either from a physiological or psychological standpoint.

First, considered from the point of view of physiology. It is indeed remarkable that several years ago, when I consulted almost every work on physiology published in the English language during the preceding ten years, not one had anything to say on the question. This search included, besides others, textbooks by the following authors: Landois,[72] Kirkes,[68] Brubaker,[16] Schafler,[111] Raymond,[100] Ott,[88] Foster,[37] Hall,[45] Stirling,[121] Johnson,[60] Hare[47] and "American Textbook of Physiology." In 1875, Austin Flint, Jr.,[36] makes a slight reference to the question, when he says that "sexual intercourse is only physiological when confined within the limits of legitimacy." With this one slight reference as an exception, I could at that time find no data in works on physiology.

But we have other authorities (outside of physiology) who have expressed opinions on this question. No less an authority than Prof. Bryant,[17] the great English surgeon, says: "The student should remember that the functions of the testicle, like those of the mammary gland and uterus, may be suspended for a long period, possibly for life, and

yet its structure may be sound and capable of being roused into activity on any healthy stimulation. Unlike other glands, it does not waste or atrophy for want of use."

This opinion from the great English surgeon answers a very important objection to continence which I have seen urged by many physicians. I have heard physicians argue as follows: "Every organ of the body, if not in use for a long time, atrophies; muscles lose their power, joints become stiff, the stomach and intestines refuse to secrete the proper digestive ferments, if these are artificially supplied for a long time; even the higher functions of the brain become 'rusty' if not made use of, therefore the genital apparatus ought to be kept active or else it will atrophy and become useless."

It is, however, a fact that the sexual organs are constructed upon entirely different principles than most of the other organs of the body. They are constructed for intermittent action and their functions may be suspended indefintely without harm to either their anatomy or physiology. Witness the mammary gland. A woman becomes pregnant and gives birth to a child, and immediately the gland, which had remained dormant for years, swells up and secretes milk. After lactation is finished the gland becomes smaller and inactive. She may not become pregnant again for ten or more years, and during all this while the gland is not in use, but even after this long period, should she again become pregnant, it will again swell up and be absolutely useful in spite of the long period of disuse. The same is true of the uterus. I have gone somewhat in detail into this question, because it is very important, and is constantly

being brought up by the opponents of the continence theory and is very apt to impress the laity.

James Foster Scott,[114] the great authority on sexual instinct, says: "If the penalties meted out to the impure are so many, there is yet comfort for the unmarried man in those pages which show that perfect continence is quite compatible with perfect health, and thus a great load is at once lifted from the mind of him who wishes to be conscientious as well as virile and in health with all the organs of the body performing their proper functions." And again, on page 95: "There is an erroneous and widely spread belief that exercise of the sexual functions is necessary in order to maintain health. . . . The reproductive glands have been so constructed that their specific activities can be suspended for long periods of time without their atrophy or the slightest impairment of function. In this particular they resemble the inherent capabilities of a woman's breasts, which can remain quiescent for years and when called into demand physiologically respond with perfect function." And again, on page 99: "It is a pernicious pseudo-physiology which teaches that the exercise of the generative functions is necessary in order to maintain one's physical and mental vigor of manhood."

Acton[1] says: "One argument in favor of incontinence deserves special notice, as it purports to be founded on physiology. I have been consulted by persons who feared, or professed to fear, that if the organs were not regularly exercised they would become atrophied, or that in some way impotence might be the result of chastity. This is the assigned reason for committing fornication. There exists

no greater error than this or one more opposed to physiological truth. In the first place, I may state that I have, after many years' experience, never seen a single instance of atrophy of the generative organs from this cause. . . . No continent man need be deterred by this apocryphal fear of atrophy of the testes from living a chaste life."

Beale,[11] professor at King's College, London, says: "And I would remark here that, notwithstanding very strong assertions to the contrary, and by authorities who profess to have thoroughly studied the question, no sufficiently valid objections have been established upon reasonable grounds, or upon facts of physiology and health, to living, nay, to passing life in a state of celibacy." And again, on page 64, in the chapter called "Question of Physiological Necessity," he says: "The argument that if marriage cannot for various reasons be carried out, it is nevertheless necessary, upon physiological grounds, that a substitute of some kind should be found, is altogether erroneous and without foundation. It cannot be too distinctly stated that the strictest temperance and purity is as much in accordance with physiological as moral law, and that the yielding to desire, appetite, and passion is no more to be justified upon physiological or physical than upon moral or religious grounds."

Sir James Paget,[89] the eminent English surgeon, says: "Many of your patients will ask you about sexual intercourse, and some will expect you to prescribe fornication. . . . Chastity does no harm to mind or body; its discipline is excellent; marriage can be safely waited for."

It must, however, in all fairness be mentioned that there are some who hold directly opposite views on this question, and in order to be candid I shall cite some of these views and attempt to point out their fallacies.

Lydston[79] says: "No man or woman at adult age is in perfect physiological condition unless the sexual function is naturally and regularly performed."

This would, indeed, be a remarkable statement, but it loses its remarkability as we turn to another chapter in the same work,—that on masturbation. Herein we see, as I shall presently quote, that even this author, who holds such extreme views, cannot deny that continence is perfectly in accord with physiological well being. He says: "There is one point in sexual physiology that should be impressed upon our patients. The impression prevails among young men that exercise of the sexual function is an absolute physical necessity, irrespective of the method of its accomplishment. Indeed, it is probable that some physicians who certainly ought to know better foster this idea by ill-weighed and injudicious counsel. This idea is most pernicious in its effects, and it becomes our duty to correct it. Although no adult man or woman under existing social conditions is physiologically well balanced in a state of celibacy, one may be perfectly healthy and physically vigorous while leading a life of absolute continence, if the mind is properly disciplined and the body made completely subservient to the will. The excuse of physical necessity is too often a subterfuge to justify fornication and even masturbation. That such an excuse should ever be offered is striking testimony regarding the prevalent

ignorance of sexual physiology. A better education in the ethics and physiological aspects of the sexual function is a crying necessity. The patient should be impressed with the idea that its (the sexual apparatus) function may be held in abeyance for very long periods, even for life, without necessarily producing physical injury. When thus held in abeyance the generative function may be called into action at any time and present no evidences of deterioration from the compulsory rest."

The writer evidently means that sexual intercourse in adult life is desirable for the maintenance of the physiological balance, but is not a necessity under ideal conditions of sexual education; but he would lead us to infer that under the artificial conditions that constitute society today it may, and often does, become a necessity.

It is, of course, obvious that the purer one is brought up and the purer his associates are, the purer his thoughts will be, and the easier it will be for him to remain continent. And, on the other hand, if the mind is constantly kept excited by the reading of immoral literature, or the presence of lewd associates, it becomes extremely difficult to refrain from sexual intercourse. This difficulty is enormously increased if sexual intercourse has already been indulged in, so that what was at first a novelty finally becomes a habit. At this stage fornication may become a necessity in the same sense as alcohol to the habitual drunkard or morphine to the morphine fiend.

In carefully looking over the authorities that believe sexual intercourse a necessity, two important facts are observed:—

The first is the twosidedness of their statements, the hemming and hawing about the matter, showing that they themselves are not quite certain about it. Thus they say that sexual intercourse is a necessity, and at the same time they caution us against telling our patients this fact. It is for this reason that at the commencement of this discussion, I have stated the issue fairly and squarely. I said there, and I repeat it here, that if sexual intercourse is a necessity, it ought not only to be allowed, but encouraged; also, if continence is prejudicial to health, it should be discouraged, no matter what religion or morality says.

The second important fact that strikes one is, that these authorities consider that the only alternative to sexual intercourse is masturbation, or, in other words, that if a healthy adult does not indulge in sexual intercourse he is bound to masturbate. This is a very grave scientific error. While it is admitted that a large number of boys and young men masturbate, it is *absolutely denied* that masturbation is in any way a physical necessity or alternative to sexual intercourse. Masturbation is generally acquired at puberty, following the awakening of the sexual sense, but it is also exceedingly common in very young boys and even infants, long before the sexual sense is developed. As a matter of fact, in a large percentage of cases the habit is dropped before sexual intercourse is commenced. I have also found the habit continued in married men while indulging in regular intercourse.

While admitting that masturbation does cause, for the time being, pronounced nervous symptoms (see chapter on Masturbation) such as dreaminess instead of being wide

awake, also readiness to submit to insult rather than fight, etc., I would still unhesitatingly say, after a large experience in both cases of masturbation and gonorrhea, better ten years of masturbation than one year of gonorrhea. There is not the slightest shadow of a proof that masturbation ever produced insanity, permanent loss of memory, or even permanent neurasthenia. While, as before stated, masturbation may produce various nervous phenomena, it has been my experience that in practically every case these symptoms were only temporary, and no matter how long they had existed or how long masturbation had been practised, all the symptoms promptly disappeared as soon as treatment was instituted and the habit dropped. Again, when we consider that the vast majority of adults have at one time or another masturbated, we must not be surprised that also among the insane we get a history of masturbation in quite a good many cases. As I have shown, masturbation, no matter of what intensity or duration, can be permanently cured; whereas gonorrhea, if neglected, is one of the most obstinate of diseases, and often does produce permanent incurable pathological conditions. To sum up, then, the whole matter, I would say that masturbation is not at all a physical necessity to those who desire to remain continent; but, even if it were, it is not nearly as great an evil as gonorrhea or syphilis, and can be rapidly and permanently cured.

I will quote just one more authority who holds the extreme view that sexual intercourse is necessary to physiological well-being.

Von Schrenck-Notzing,[113] page 30, says: "Likewise in

man enforced abstinence may endanger the freedom of the will and lead to perversity of the sexual act." Again, on page 39 he says: "The best cure for Onanism and other manifestations of sexual hyperesthesia—with few exceptions there can be no doubt upon that point—lies in regular sexual intercourse." And, on page 40: "Therefore, the chaste youth should exercise sexual abstinence as long as he is able to restrain the instinct without injury to his health. Should he be in danger owing to increasing strength of his sexual impulse, of Onanism, of falling a victim to satyriasis, or perverse sexual indulgence, then it becomes the duty of his teacher and his physician to cause indulgence in coitus and, too, to acquaint the neophyte with precautionary measures which will guard against excesses, infection, and the procreation of illegitimate offspring."

The views here expressed are so decided that they cannot be left unnoticed, and it behooves us to examine them closely.

The theory that abstinence causes satyriasis or other sexual perversions is analogous to the theory that sexual intercourse is a physical necessity. After most carefully studying this very important question, I do *not* believe that sexual perversion any more than insanity is caused by abstinence, but rather that abstinence may be but one of the many symptoms of sexual perversions. The fact that a sexual pervert who satisfies his sexual cravings through various disgusting means is abstinent from regular sexual intercourse does not say that because he is abstinent, therefore, he is led into sexual perversity. His mind is so constituted that he simply prefers this method to the other. If one

follows up the history of these sexual perverts, he would be struck by the fact that in not a few instances these pervert tendencies started quite early in life, even before puberty, when surely abstinence could not have been the cause of them. I have gone somewhat into this question in the chapters on Satyriasis and Nymphomania, but further discussion into this very interesting subject of sexual perversions would lead me far beyond the limits of this chapter.

The next proposition is even more startling: "The best cure for Onanism and other manifestations of sexual hyperesthesia—with few exceptions—lies in regular sexual intercourse." It is a pity that the author does not give us the "few exceptions," for then it might be seen that they embrace practically the *entire* subject. As is well known, Onanism generally starts around puberty, or even before it, and continues for a few years thereafter. Does this authority mean to recommend sexual intercourse at the ages of 12, 13, 14 or 15, in order to cure the habit? If not, then one of his "few exceptions" cuts off certainly over 80 per cent. of the cases, for the largest portion of them start and continue during these ages.

But let us say that the author refers only to adults. Even if there were no other remedy for sexual hyperesthesia than sexual intercourse, I would very much hesitate to prescribe a remedy which carries with it the almost certain risk of gonorrhea or syphilis. Surely the "cure" is much worse than the disease. But, happily for mankind, there is another safe and certain remedy. In the chapter on Masturbation I have shown that the hyperesthesia in the prostatic urethra, as well as the congestion of the prostate

gland itself, which is the result of long-continued masturbation, acts reflexly upon the sexual centers in the brain and causes the intense desire to masturbate. Also, that as soon as the local condition is cured by prostatic massage and deep urethral silver-nitrate instillations (see chapter on Masturbation), the desire for masturbation ceases, and the patient is cured of the habit.

Let us now consider the last proposition, which, to state briefly, in order to avoid repetition, is that the chaste youth should refrain from sexual intercourse as long as he can, but, as soon as such abstinence seems to interfere with his health, his physician is to advise sexual connection, telling him how to avoid venereal disease and illegitimate offspring.

The first part of this paragraph peculiarly illustrates the hemming and hawing about the subject which I have previously alluded to. It is simply a most cowardly device on the part of the physician for throwing off his own responsibility, and putting it upon the patient. It may be good politics, but it is neither scientific nor in accord with the ethical obligation that the physician owes to his patient. To tell a young man "Don't have connection, but when you can no longer refrain from it, have it," is simply to give a silent consent to it; for every young man will quickly come back and say that he cannot refrain from it. If he later presents himself with a venereal disease, the doctor will say: "I told you so; I told you not to have connection, but you would not listen to me."

But the advice (according to the author) does not end here. The physician is to instruct the youth how to avoid

venereal disease and illegitimate offspring. The author very wisely omits to tell us what these instructions consist in. A statement like this may possibly be swallowed by the general public, but to the physician, especially one with experience in genitourinary work, it is the rankest hypocrisy. If the physician, with the proper light and instruments, the woman in the proper position, with the aid of the speculum, the microscope and the culture plate, cannot always, or even generally, be positive that his patient is free from infection, how in the name of all the gods at once can the young man, without this knowledge and facilities, tell whether the woman is safe or not? It cannot be too firmly impressed upon the public that a man does not generally become infected by a woman with an *acute* gonorrhea; it is mostly from women with *chronic* gonorrhea, with little or no visible pus, that most gonorrheas are contracted. It is just at this stage that the physician needs all modern resources to determine whether the case is infectious or not, and it is ridiculous to expect the lay young man to make the diagnosis. The second part of the proposition, *i.e.*, the prevention of illegitimate offspring, leads us into the realms of criminality, and such a statement ought not to be tolerated in any legitimate monograph.

I have entered into some detail in the discussion of this theory of von Schrenck-Notzing, because it is a typical illustration of the arguments advanced by those who hold this theory.

In this connection I may quote Sturgis[120] as follows: "Trainers of pugilists and of men who are entering for athletic contests are well aware of the effect sexual inter-

course exerts upon the physical and mental condition of every man, and coitus is the one thing which is rigidly excluded, and about which the strictest laws are held. An ex-pugilist has told me that when he was training for a fight, at the beginning, he suffered a great deal from want of intercourse, his seminal losses were frequent, and he had large and repeated pollutions, but in a short time, as soon as he got thoroughly into his work, these entirely disappeared and indeed he thought no more about them, but as soon as his work was finished and the fight was over he found that sexually he was as good as ever, the libido was pronounced, and, as he expressed it to me, he 'could not get enough,' and I am satisfied, not only from this man's experience but of others with whom I have talked, that in such cases there is no loss of power from sexual abstinence, provided always the patient is not keeping his genital organs continually irritated by dallying with women, by reading, talking, or thinking about matters connected with sexual intercourse."

I have thus far discussed the question from the point of view of the anatomist and physiologist. I will now briefly discuss it from the neurologist's viewpoint. In so doing I cannot do better than quote from one of the greatest neurologists in history. In the Lettsomian Lectures on Syphilis and the Nervous System, Professor Gowers[41] says: "With all the force that any knowledge I possess can give, and with any authority I may have, I assert, as the result of long observation and consideration of facts of every kind, that no man ever yet was in the slightest degree or way the better for incontinence; and I am sure, further,

that no man was ever yet anything but better for perfect continence. My warning is: Let us beware lest we give even a silent sanction to that against which I am sure we should resolutely set our face and raise our voice." Surely such an assurance from the great neurologist ought forever to allay the fears of those who fear wreck of the nervous system, submersion of the freedom of will, insanity, sexual neuroses, and degenerations as the result of continence.

The lectures from which the above quotation was taken were delivered by Gowers in 1889. In order to determine if modern neurological research work might possibly alter this opinion, I sent a circular letter in 1910 to many of the most prominent neurologists in the United States, asking them if they had ever seen cases of nervous disease which could be attributed to continence. In practically every case I received the answer, that not only did they consider continence physiological, but that they did not believe, from their experience, that continence ever leads to nervous disease.

It has been claimed that continence leads to impotence. This accusation must therefore be faced fairly and squarely.

In the discussion of the various types of impotence I have pointed out that there is one form which occurs in men in whom the sexual functions appear very late, and last but a short time. These men rarely masturbate, rarely have pollutions, have very slight libido and easily remain continent. They sometimes marry for economic or other reasons, and are impotent, but do not worry much about their condition. In other words, in these cases there is a

congenital lack of sexual desire and power, which is the cause of the easy continence and impotence.

Cases like these are often the ones brought forward as examples of impotence having been caused by continence. The careless observer, going into the history only superficially, simply takes it for granted that the man is impotent because he has been continent.

I have also called attention to another form of impotence in which the etiology and pathology are just the reverse to that above mentioned. To this class belong men, with normal or even powerful desire and passion, who indulge in illicit intercourse for years before marriage, and are perfectly potent. They then become engaged to be married, and, for fear of infection, remain continent during the period of their engagement. Their continence however, consists merely in abstinence from coitus. They see their girl every night for months or even for a year, and spoon for hours at a time. As a result of this continuous spooning, they get their sexual organs and sexual centers into a hyperirritable condition but stop just short of coitus. In consequence of this, their sexual organs and centers become congested and hyperirritable, until they finally become exhausted. (See Pathology of Impotence, p. 75.) If they marry while in this condition, they are apt to suffer from temporary impotence.

Here, again, the careless observer might conclude that as long as the patient indulged in coitus he was potent, but as soon as he remained continent for a long time he became impotent, and that, therefore, the impotence was the result of continence. As a matter of fact, however, these

men were not continent in the scientific sense of the term, but quite the opposite. The best proof of this is the therapeutic proof. If you permit such a man to continue his attempts at coitus he will continue to get worse, but if you insist upon true scientific continence his sexual organs will recuperate rapidly as a result of the rest, and he will soon be restored to the normal.

It has been argued that, after the sexual organs are mature, continence is contrary to nature, that the object of sexual desire and coitus is not merely for purposes of procreation, for if that were the case it would be necessary to indulge perhaps only a dozen or twenty times in a lifetime. It is contended that, if procreation were the sole object of coitus, it follows that as soon as the wife becomes pregnant it would not be necessary to indulge for the entire period of pregnancy and even for one or two years after the birth of the child. Placing the maximum child-bearing period of a woman as perhaps thirty years, it can easily be figured out how few acts of coitus are required if its object were procreation only.

This is certainly a powerful argument against continence, and seems to hold up the whole theory of continence to ridicule. It must be fairly met, and, after devoting considerable attention to it, I have come to the following conclusion:—

It is undoubtedly true that the act of coitus is not for purposes of procreation only, any more than the act of eating is merely for the purpose of sustaining life. Chittenden and other physiologists have shown that we eat far in excess of what we actually need to sustain life. If the

object of eating were only to supply our bodies with the necessary elements, a few simple articles of diet would suffice. Most of us eat because we enjoy the things we eat, and likewise most people indulge in coitus because they enjoy it. But here comes the very important point: While most of us eat because we enjoy the things we eat, we would not *voluntarily* eat anything which would *seriously* harm us. In our *ignorance* we might perhaps eat things which do not agree with our digestive apparatus, but no sensible person would *voluntarily* do so. *I doubt whether any sane person would partake of a dish, no matter how tempting it appeared, if he knew there was danger of contracting syphilis or gonorrhea thereby.* Of course there are persons with such weak resisting powers who cannot resist a tempting dish which previous experience has shown does not agree with them, but such persons are certainly in the minority, and even such persons would resist if the risk were in any way as serious as contracting gonorrhea or syphilis.

I fully realize that the impulse for sexual connection is a much more powerful one than the impulse to partake of a tempting dish, but the difference is one of degree only.

It is the same with the act of coitus. I admit that in the vast majority of cases it is indulged in for the pleasure it affords, and it is perfectly proper for married people to indulge in it as often as is consistent with their sexual powers, irrespective of procreation. Were there no danger in illicit coitus, the question would be solely a moral one, and medicine would have nothing to do with it. But as past experience has shown the very grave dangers of illicit

coitus, the above argument against continence at once falls to the ground.

Lastly we come to the argument, that continence is contrary to nature. In discussing the etiology of satyriasis I have touched upon this very subject, and will again repeat in part what I said in that connection.

In the earliest stages of development, nakedness was the rule, and cohabitation was practised entirely unrestrained by law or morals, simply as an expression of unbridled passion. No restraint was imposed upon the sexual impulse, and it was gratified without shame or formality. According to Herodotus[69] many of the natives of antiquity did not keep the sexual relations private, but cohabited like animals in any assemblage.

This condition of affairs still exists today among uncivilized peoples. Cook,[69] in connection with his first voyage, mentions that at Tahiti he saw a native in sexual intercourse with an eleven-year-old girl, in the presence of the queen, who gave him directions in that regard.

As a result of centuries of education, however, civilized man has set up a moral code for himself, which dictates that he satisfy his sexual needs within certain limits of modesty and morality, and not like the brute, whenever the desire seizes him.

In discussing the atavistic theory of satyriasis, I mentioned that were a *normal* primitive man brought into contact with modern society, it would be impossible for him to control his sexual appetite as does the civilized man of today, after centuries of education. It is more than likely that the former would have connection at every opportunity,

whenever the desire seized him, and to all intents and purposes he would be practically like a patient afflicted with satyriasis. In other words, if a man were born today with primitive sexual instincts, and with that lack of self-control which is *normal* to primitive man, we would certainly consider him as suffering from satyriasis.

This, in brief, is the answer to the argument that continence is contrary to nature: Tell a dog on the street that he must not have connection on the public highway, but must restrain his desire till he and his bitch can find a dark and secluded spot, he would probably resent this interference as contrary to his natural instinct. *Nature* teaches us to satisfy our sexual impulse whenever desire occurs, and this would really be the most physiological way of doing things, but *civilization* dictates that we restrain our passion within certain bounds of decency and morality. It is just as much against nature to restrain our passion within these bounds as it is to practise continence and to restrain it within bounds of legitimacy, especially as such restraint in normal individuals is perfectly physiological.

In connection with the nature argument against continence, it has been said that human nature has always been the same, and that you cannot change it, and that there has always been illicit coitus and will always be, as long as human passions and desires remain the same.

I have just shown, by comparing primitive man with civilized man, that you *can* change human nature, in spite of the fact that the sexual passion is probably just as strong in the civilized man of today as it was in his primitive ancestor.

But we need not go back to primitive man for comparison. For reasons too complicated to mention, woman has always excelled man in sexual morality. She has always been more moral and modest than man.

And yet we need only consider her as portrayed in old English literature, as, for example, in the original edition of the Knights of the Round Table, or even in comparatively modern literature, as illustrated in Shakespeare's works, to appreciate the vast difference in the morality of the woman of several centuries ago and that of the woman of today.

Heaven knows that there are enough immoral women today, and that there are many single as well as married women who transgress the law of morality, but the greatest pessimist must concede, nevertheless, that these women are greatly in the minority in proportion to the feminine population. In fact it may be stated, without fear of contradiction, that the vast majority of wives and daughters are absolutely moral. Women today are considered virtuous as a matter of course, until the contrary has been proven, and it would be considered a gross insult, in introducing a woman, to state at the same time that she is virtuous. There is no necessity for such a remark.

But consult literature as I have done, and see what was the standing of woman, and the opinion concerning her during the period above referred to. In introducing a woman, or in recommending her in marriage, it was generally deemed necessary to descant upon her sexual virtue. It was not taken for granted that a woman was virtuous as a matter of course, but, if she were, special mention was

made of the fact, while men were never expected to be virtuous in those days. In other words, the woman of that period occupied the same position in sexual morality as does the man of today.

The world has been advancing; the woman of today is, in the vast majority of cases, a moral woman. Man has been advancing also, and will, I believe, continue to advance until he will some day, not very far distant, be far more virtuous than ever before. Woman demands it of him today, whereas less than ten years ago she did not expect him to have been virtuous before marriage. What woman demands of man, she is bound to obtain.

CHAPTER XVIII.

SOME UNUSUAL FORMS OF SEXUAL NEUROSES.

General considerations. Illustrative cases. Results of treatment not due to psychic effects.

In the following pages I will not consider the more common forms of sexual neurasthenia, such as impotence, masturbation, pollutions, etc. In all these, from the very nature of the condition, the attention of the physician is at once directed to the sexual apparatus, and the patient is treated either by his regular attendant or is referred by him to a specialist.

In this chapter, however, I desire to discuss some of the unusual forms of sexual conditions, cases in which the patients present symptoms of widely different varieties, and, in many cases, not at all suggestive of the sexual apparatus. In reading the cases as reported herein, together with their diagnoses presented at the very beginning, it may *appear* not to have been very difficult to have made the diagnosis or to have seen the relationship of the patients' symptoms to the sexual apparatus, but in actual practice it is at times far from easy to recognize that relationship. In the first place, we must remember that the patients do not come to us saying that they are suffering from sexual neurasthenia and have such and such symptoms or conditions. Far from it. As before stated, they come complaining of the most diverse symptoms, making no mention whatever of their sexual condition; in fact, in many cases not even suspecting that their condition or train of nervous symptoms bears any

relationship to the sexual organs. It often takes considerable questioning to bring out the sexual etiology, and very often the most painstaking examinations and interrogations are necessary before we can determine that the patients' symptoms are due to reflexes from the sexual apparatus. In many cases the genitourinary specialist must call to his aid the neurologist for differential diagnosis, before ascribing the blame to the sexual organs. Similarly, however, the neurologist should call to his aid the genitourinary specialist for a complete examination of the sexual organs in cases which fail to respond to treatment and where the etiology is doubtful.

I might here state, in passing, that the average physician has not yet awakened to the importance of the male sexual organs as a source of *reflex* nervous symptoms, as compared to the female sexual apparatus. In the latter class of patients the pendulum seems to have swung *too* far. The physician has long since learned the important influence that the female sexual organs exert on every organ of her body. No physician would neglect thorough gynecological examination where the etiology of any nervous condition is not clear. I have said that there has been too much zeal in this direction, and many women are subjected to treatment and operation because of some slight, supposedly pathological condition found, which is thought by the examiner to be the source of all her woes.

For a study of sexual neuroses we must *not* look to the genitourinary clinics. To make a study of these cases I associated myself with the neurological class of Dr. Abrahamson, at the Mount Sinai Dispensary, where all such

cases were referred to me. A special room was set aside adjoining one of the neurological rooms, where I made a complete genitourinary examination of all cases sent me. Besides taking a complete history of each case, palpating the external genitals, and the prostate and seminal vesicles *per rectum,* I examined the anterior urethra with the ordinary endoscope, and the posterior urethra with the Wossidlo-Goldschmidt posterior urethroscope. The patients did not come to the dispensary complaining of sexual trouble. They came complaining of various neurological symptoms, and if Dr. Abrahamson, after going into the history, suspected or determined that there was a genital source for their trouble, he referred them to me for genitourinary examination and, when suitable, for treatment. It was in this way, and not through the genitourinary clinics with which I have been and am still connected, that I have been able to make a special study of these cases as well as those of impotence, masturbation, and kindred ailments. I believe this plan of having a genitourinary examination-room in connection with a neurological department is a most excellent one —a far better practice, to my mind, than the one so often seen in other neurological clinics, where these patients are often dismissed with a dose of bromides or a tonic, without even a pretence of a genitourinary examination.

Sexual Neurasthenia with Unusual Sexual Symptoms.— Patient has been married ten years. He has had three or four attacks of gonorrhea, the last attack having been fifteen years ago. Has had also a left epididymitis. He is sterile and his semen shows no spermatozoa. Urination is normal by day and absent by night. His chief complaint is that at

night, and only at rare intervals, he is seized with a severe pain in his penis, located about three-quarters of an inch from the meatus. This pain lasts about an hour, during which time the entire penis shrinks up (does not bend) and his testicles also become heavier and smaller. If an erection comes at this time, the pain subsides. This the patient ascribes to the stretching of the penis. An examination shows signs of an old left epididymitis, and also a thickened right epididymis. This condition is sufficient to account for the sterility. The prostate is enlarged. The urine is turbid and full of long shreds. With the *bougie à boule,* a distinct stricture is found in the anterior urethra at the site of the pain, and with the endoscope we also see a distinct stricture (hard infiltration) at that point.

With the above urethral findings, one would at once naturally conclude that the stricture was the cause of his symptoms. This, indeed, was my impression. I therefore treated the patient with dilatation of the stricture, together with massage of the prostate at intervals in order to reduce its congestion. It must be remembered that, previous to the patient's coming to me, he had the attacks only at *rare* intervals. As the dilatation of his urethra progressed, I noticed that although the local condition had so far improved that he could take a large-size sound (30 F.), there was absolutely no change in his symptoms. In other words, these continued to recur at the same rare intervals. I was, however, struck with the fact that whenever the prostatic urethra was irritated, either by the urethral sound or by prostatic massage, a typical attack was evoked that same night. In other words, it was noticed that as long as the

condition of the anterior urethra was treated by staffs which only touched the anterior urethra, no effect, either good or bad, was experienced by the patient, but as soon as these staffs were replaced by sounds which passed into the bladder, the symptoms at once became aggravated. I further noticed that although the stricture was situated in the anterior urethra, no bleeding occurred if only the anterior staffs were used, whereas a sound passed ever so gently into the bladder would almost always be followed by some bleeding. I then concluded that in spite of the presence of a stricture in the anterior urethra and the location by the patient of his pain almost precisely at the site of the stricture, this was only a concomitant condition, and not at all the cause of his symptoms. As soon, therefore, as his anterior urethra was sufficiently dilated, I examined the posterior urethra with the Wossidlo-Goldschmidt posterior urethroscope. This instrument showed a marked congestion of the entire posterior urethra, with several erosions. I had intended to make direct applications to the posterior urethra through the endoscope, but on account of the extreme congestion present (even the introduction of the instrument or of a sound being followed by hemorrhage) I determined first to relieve the congestion by instillations of weak silver solutions with the Bangs sound syringe, gradually increasing the strength of the solution and the size of the sound syringe. It might be added, in passing, that in cases where applications to or operations in the posterior urethra through the posterior endoscope are necessary, but where there is such extreme congestion of the parts as to preclude the passage of the instrument, I have found it

expedient to give a preliminary treatment as above, until the congestion was relieved. Accordingly, every fifth day and later at longer intervals, the prostate was gently massaged and deep instillations of very weak silver-nitrate solutions given (starting with 1 : 3000 solution and a 16 French sound syringe). As before stated, the strength of the solution and the size of the sound were gradually increased, with the result that the attacks at first became less severe and later ceased altogether, so that finally it was not necessary to use the Goldschmidt instrument at all in order to make direct application.

In reviewing this case, it must be said that, while reflex symptoms coming from a congested prostate and posterior urethra are various and numerous, I have never seen reported a symptom-complex like the above, and other genito-urinary colleagues with whom I have spoken tell me that they also have never had a similar case. It must be stated here, that had the picture not been confused by the findings in the anterior urethra, attention would certainly have been drawn at once to the prostate and prostatic urethra.

Sexual Neurasthenia Due to Withdrawal.—M. L., referred to me by Dr. Abrahamson in December, 1912, was 39 years old, and the father of one child. He came to the Neurological Clinic complaining of carelessness in work, loss of memory, and loss of all sexual desire as well as general nervousness. He admitted having practised withdrawal for some time. His prostate was very much enlarged, while the deep urethra was found to be very congested. Fortunately, this patient was separated from his wife, and recovered with no other treatment than massage of the

prostate and a few direct applications of 10% silver nitrate to the verumontanum.

Examining the history of this patient in retrospect, we note, as has been repeatedly pointed out heretofore, that, like very many similarly afflicted, he did not seek the genitourinary specialist complaining of sexual symptoms, but came to the neurologist complaining of the most vague neurasthenic symptoms. It was only after much interrogating that the etiological factor was elicited.

Pruritus Ani Due to Reflexes from the Prostate.—Although cases like the following have been previously reported, they are rare and not generally appreciated; so that it would seem advantageous to call attention to the condition.

The patient, S. T., complains of severe itching in and also about the anus, for which he had been treated without any result for a long time. He is 30 years old, single, and had gonorrhea six years ago. Coitus is normal, urination five or six times a day and sometimes at night. Seldom has wet dreams, and has never practised masturbation. Urine is normal except for the presence of excess of oxalates. Examination shows an enlarged prostate and fissures around the anus.

Here again the etiology was obscure. Itching is a very common symptom in connection with anal fissures, and one would believe the etiology to be very simple. However, the patient, before coming to me, had been carefully treated for a long time for this condition, without result.

I treated him by massaging his prostate once a week, together with an application of 5 per cent. silver nitrate to his anal region. The result was that after only four treat-

ments his pruritus had entirely ceased and has remained away up to date. For theoretical considerations it would perhaps have been better to have omitted all treatment except the prostatic massage, but I did not think it right to omit anything that might prove of benefit to the patient's most distressing condition, even though the etiological factors might thereby escape. Perhaps it was the combination treatment that did the work, but certainly the massage of his prostate must have contributed greatly, because, as above stated, he had received the local treatment before, without any result.

Sexual Symptoms in a Psychopath Not Dependent upon Condition of the Sexual Organs.—I desire to report this case as a direct contrast to the others, showing that we may have cases of sexual neurasthenia with pronounced sexual symptoms, with definite genitourinary findings, yet in which the symptoms are entirely psychic and only remotely caused or influenced by the condition of the genitourinary apparatus. Cases like the present one ought to be reported and emphasized in order to prevent us from claiming too much, and so make the genitourinary specialist too narrow, causing him to imagine that everything revolves about the sexual organs. In cases like the following, the genitourinary specialist should call the neurologist to his aid, and the latter can probably cure the patient by psychic treatment:—

H. S., referred by Dr. Ziegel of the Mt. Sinai Dispensary, November 1, 1912. He is single, aged 21. Six years ago he practised masturbation almost daily, over one and a half years. This was followed by a continuous prostator-

rhea lasting five weeks. Two years ago he was treated by a quack physician who massaged him for one year. His chief complaint is that he imagines he feels his spermatic fluid circulating all through his body. He believes that he will not get well until his system is rid of this contamination. He expectorated into his handkerchief and explains that he feels and sees the spermatic fluid in the saliva. Now he complains of pains all over his body which he attributes to the action of the spermatic fluid poisoning his entire body.

Examination of the genitals shows a varicocele and an atrophic prostate. The posterior urethra, examined by the Wossidlo-Goldschmidt posterior urethroscope, exhibits a practically normal verumontanum, with a marked erosion in the left lateral sulcus, and with an erosion at the opening of the left ejaculatory duct. The entire urethra is hypesthetic, the patient experiencing no pain or tenderness on passage of the instruments. There is no congestion of the verumontanum and the entire urethral picture, as well as the condition of the prostate as felt *per rectum,* is the direct opposite to what we find in cases of masturbation. The slightest palpation on the prostate brings fluid to the meatus. He urinates every two hours by day and rarely by night.

With this pronounced sexual history and the definite genitourinary findings, one might believe the relationship of cause and effect very direct. However, the patient came to the dispensary at irregular intervals and was treated by deep instillations of silver nitrate, and direct application of strong silver solution to his erosions through the urethroscope, and while his urethral condition cleared up

entirely, and while there were no pollutions and he ceased to masturbate, yet there was absolutely no improvement in his psychic condition. He still felt his spermatic fluid coursing through his entire system. I believe him to be a psychopath and a case for mental rather than for genitourinary study.

Severe Anxiety Neurosis Due to Prostatic Irritation.—This case is reported because it is an extreme case of depression due apparently to no other cause than reflexes originating from a congested prostate induced by previous masturbation. This is but one of many cases, although in general they do not present such severe symptoms. This case did not come into the genitourinary clinic for examination of his sexual apparatus, but into the neurological department of Dr. Abrahamson, and from the careful history taken in this department the relationship was easily recognized, and he was at once referred to me:—

M. G., single, aged 26, came into the neurological department of Mt. Sinai Dispensary on November 3, 1911. His history, as copied from the neurological blank, is briefly as follows: Gonorrhea four times; last attack six months ago. Began to masturbate at 14 and stopped three years ago. Duration of present condition, five years. Is depressed; believes that his face does not look as it should; believes that people looking at him realize that there is something wrong with him. Knows that people doubt him. Memory good; sleeps fairly well; dreams rarely. In company of men, feels small; in company of women, feels very small and bashful. Believes that people can read the truth from his eyes and know what ails him. Hates and loves

all women. His main worry is his eyes; feels sure that if his eyes were different he would feel perfectly well. Feels that his eyes are weak bcause of weak nerves brought on by Onanism and too much sexual intercourse. Life is not worth living. Does not masturbate any more. Pollutions rarely. Intercourse every two or three weeks. Sometimes believes that he will become insane and believes that he knows how he will act should that ever happen. He is very excitable and there is a lack of concentration. His general appearance is dull and apathetic. He also complains of severe headache and dizziness. All I found on examination was a very enlarged and tender prostate. The only treatment he received was massage of the prostate once a week. At the end of two months, when he made his last visit, practically all his symptoms had left him.

I suppose that many neurologists with such a distinct sexual history would consider this an ideal case for psychanalysis, but here Dr. Abrahamson reversed his usual procedure and had the sexual apparatus investigated and treated first, before resorting to psychic treatment. To try to cure a patient by psychic treatment alone, while there exists a constant stream of reflex irritation sent to the brain from a congested prostate, is a mistake too commonly made. The ardent disciples of Freud, in their enthusiasm, are apt to be entirely too narrow in their interpretations.

Tremor of Hands Due to Prostatic Irritation.—Tremor of the hands is a common symptom in many nervous affections. In fact it is a common sign of "nervousness," using the term in the popular sense, but it is rather unusual to find it the only symptom of a congested prostate.

W. S., single, aged 20, was referred to me in June, 1911. His only complaint was a marked tremor of the hands which interfered with his business. He never had any venereal disease, rarely has wet dreams, and coitus, though rare, was normal. He likes to "fool" with girls. The only thing I could find was a moderately enlarged but rather tender prostate gland, which was most probably the result of the unnatural sexual excitement of too much spooning. He received no medication, and was treated merely by prostatic massage and deep urethral instillations of silver-nitrate solution. He was also cautioned against all manner of sexual excitement. As a result, in six weeks the tremor had entirely disappeared. He remained well for about two years and then returned with exactly the same symptom again, due to the same cause. This time the condition was complicated by nocturnal pollutions. He was again put on the same treatment with the same good result, and is at present absolutely well. How foolish it would have been to have dosed this patient with bromides or to have given him electricity or tonic treatment!

It might be objected by some, that the symptoms as well as the good results obtained in the cases just outlined, were not due to the conditions found, nor to the treatment of the sexual organs, but that these good results were perhaps due to the psychic influence of the treatment. I do not wish to deny the psychic effect produced by the treatment. The introduction of the lighted endoscope or cystoscope is full of possibilities hitherto unknown to the patient. There is first, the direct seeing of the disease focus, which, like an X-ray examination, appeals especially to the layman; sec-

ondly, the patient very frequently believes that light and electricity are both very beneficial in their therapeutic effects; and lastly, the novelty of the procedure impresses the patient with the thoroughness of the examiner. But in spite of all this, which in some cases only, is a concomitant feature, I feel certain that the good results were mostly due to the treatment itself. In the first place, the lesions in the genital apparatus were actually present, and the symptoms were improved, generally parallel with the improvement in the local condition. But what is significant is the fact that most of these patients had received treatment for a very long time, with other procedures which must have had a greater hold on their imagination than my treatment. Take, for instance, the patient with attacks of pain in his penis. At first the dilatation of his anterior urethra with the Kollmann dilator has absolutely no effect, either good or bad, on his symptoms. If the case were purely psychic, a Kollmann dilator would have had more effect than rectal manipulation. But we see that this did not occur, and he only got well as soon as the prostatic urethra was treated and the local lesion cleared up. Going through all these cases, therefore, we note that almost all of them were treated by prostatic massage and deep urethral instillations,—procedures which are certainly not at all calculated to impress the imagination.

I wish to draw attention to the fact that the various neuroses are psychanalytically investigated by the neurological department before they are sent to me. It is only after failure to elicit the etiological factor, or failure of the psychanalysis itself to benefit the patient, or failure of

educational attempts of therapeusis, that the patient is referred to me for examination and possible treatment.

In conclusion, the object of this chapter is to draw attention to the male sexual organs as the cause of profound nervous symptoms in many cases. I do not wish by any means to convey the impression that the male sexual apparatus is the hub around which the neuroses revolve. I have, therefore, purposely reported my failure to cure the patient by treatment directed to his sexual organs, in one of the types of cases, in spite of the fact that lesions in these organs existed, and were influenced favorably by treatment. We all know that severe nervous symptoms may follow errors in refraction, errors in digestion and assimilation and other reflex irritations from almost any organ in the body, but I do plead for a more careful investigation of the male sexual apparatus in functional nervous diseases in such cases which fail to respond to treatment and where the etiology remains in doubt.

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